The American Artisan
And Hardware Record

Vol. 53. No. 20. CHICAGO, MAY 18, 1907. $2.00 Per Year.

BOLTS

Of All Kinds. Nuts, Washers and Carriage Forgings.

COLUMBUS BOLT WORKS, COLUMBUS, — OHIO —

IN THE FRONT RANK FOR 25 YEARS

"AMERICAN SEAL"

ELASTIC OIL ROOFING CEMENT
STOVE PUTTY and ASBESTOS
FURNACE CEMENT

and the superior quality of these goods is still universally recognized.

THE WM. CONNORS PAINT MFG. COMPANY
MAKERS
TROY, N. Y.

Western Agent
PERKINS ROOFING & SUPPLY CO.
235 Lake St., Chicago, Ill.

Southwestern Agent
STOCKHOFF SUPPLY COMPANY
107 N. Main St., St. Louis, Mo.

TRYING to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

NEW DESIGN WORLD'S BEST TUBULAR TRACK DOOR HANGER

We have increased the diameter of the wheel to 2¼ in., making it the easiest running Hanger on the market.
The supplementary wheel prevents derailment. Frame is made of best grade malleable iron. Finished in Aluminum and each pair packed in an individual box, complete with bolts. The track brackets are slidable and may be placed at any point desired. We do not sell catalog houses. Write for prices.

SAFETY DOOR HANGER CO.
Manufacturers
Ashland, Ohio Hamilton, Ont., Can.

U. S. CLOTHES PINS

Never rust, smut, split, or blow off the line.

A special clips made to order.

U. S. CLOTHES PIN COMPANY
Montpelier, Vt., U. S. A.

DELTA FILES DELTA FILES

FILES OF QUALITY

DELTA FILES

Lest You Forget—We Say It Yet

TRADE MARK DELTA

DELTA FILES

CARVER FILE CO., - Philadelphia, Pa.
An independent organization not connected with the trust in any form, shape or manner.

"BROWN"
TIE-OUT CHAINS

Fitted with Stake Ring, a Swivel every ten feet, and a Swivel Snap.

A FREE SAMPLE WILL TELL THE STORY.

The BRIDGEPORT CHAIN CO.
BRIDGEPORT, CONN.

Whether You Make a Dollar or Save a Dollar—the Effect is the Same on Your BANK ACCOUNT

WE are in a position to RENDER SERVICE BOTH WAYS

We would suggest that you get our catalogue and price list

Stove & Range Co. of Pittsburgh

Pittsburgh, Pa.

The Kelsey System in Schools

Many of the States have enacted very stringent laws governing the heating of public schools, especially covering the flow of free air per minute for each pupil.

The KELSEY Warm Air Generator is particularly adapted for this class of heating, and many school-buildings are now heated and ventilated by the KELSEY System.

The KELSEY can be used with either the Gravity or Mechanical (Fan) System—with either it will give better results than any other warm air apparatus, or Steam.

The air, in passing up through the KELSEY Generator **must** be properly warmed—and the immense heating surfaces of the KELSEY insure maximum efficiency in zero weather, with minimum fuel consumption.

Several of the KELSEY Agencies are going after School Heating Contracts, and meeting with splendid success.

You can do the same.

We'll assist you in the engineering details, if you have any hesitancy on this score.

Let us outline our Exclusive Agency Proposition—and point out how the KELSEY is adapted for heating large public schools, or small cottages.

KELSEY HEATING CO., SYRACUSE, N. Y.

New York City:
156 Fifth Avenue

VAN EVERA & LEWIS MFG. CO.
[104-106 W. Lake St., Chicago]

JAMES SMART MFG. CO., Brockville, Ont., Sole Makers for Canada

"MADE GOOD"

WHITE'S OAK

Dear Sirs:—The accompanying photograph is one of my White's Oak which I bought in 1892 and have been using every winter since, heating three rooms, two 14 feet square, down stairs, and a bed room up stairs. In the fourteen years I have used this stove I haven't spent one cent for repairs and it is apparently good for fourteen years more. I have also found the White Oak a fuel saver, as I have never used more than one hod of coal a day, even in the coldest weather. In my opinion the White's Oak can't be beat. Yours truly,

EDWARD KLEMME,
625 South 17th St., City.

THOMAS WHITE STOVE COMPANY

QUINCY, ILLINOIS

WHY NOT

When you are writing a letter of introduction,
When you are requesting payment of a debt,
When you are making application for a position,
When you are writing a draft to your own order,
When you are making an agreement for hiring a workman,
When you are assigning with power of attorney,
When you are making a merchandise broker's contract,
When you are applying for incorporation papers,
When you are taking a note from a married woman,
When you are desirous of acquiring a trade mark,
When you desire to send money to a foreign country,
When you desire to detect counterfeit money,
When you desire to draw up articles of co-partnership,

DO IT RIGHT?

You Will Learn How by Consulting The Manual of Business.

The Beet Sugar Gazette, Chicago, writes:

"'The Manual of Business' is intended to be a reference book for the many forms of business usage and correspondence which enables a man to carry on his business in accordance with the current commercial customs. The following table of contents shows the wide field covered by the author: Penmanship and Commercial Correspondence, Bookkeeping, Debts and Collections, Banking, Commercial Papers, Contracts, Notes, Patents, Measurements, Public Roads, Postal Regulations, Discount and Interest, Property, Real and Personal, Transportation, Rights of Parents, Parliamentary Rules and Forms of Resolutions, Dictionary of Business Terms, Business Abbreviations, Business Maxims. The book is well printed and bound, and will make a pleasing addition to any library."

Domestic Engineering, of October 25, says:

"'The Manual of Business' is a book of 263 pages containing a collection of correct business forms for executing all commercial instruments, commercial data and advice on the thousand and one questions of correct methods that are constantly arising in every-day business life. It is compiled from various sources by Sidney P. Johnston, and published by Daniel Stern, of 69 Dearborn street, Chicago. This work is intended as a reference book for retail merchants, and we believe with the compiler that it will prove 'a ready reference work in regard to the many forms of business usage and correspondence whose employment identified the man posted in commercial methods and commands an attention and recognition that the incorrectly worded commercial instrument is rarely accorded.'

"This work will also prove invaluable to the young business man, acquainting him with the forms in vogue in commercial life and increasing his commercial worth as he masters its points."

THE PRICE IS $3.50 A COPY. FOR SALE BY BOOKSELLERS EVERYWHERE, OR
DANIEL STERN, 69 DEARBORN STREET, CHICAGO.

"It's On Legs"

LORAIN Steel Range

Built Up From The Floor

We want a live dealer in every town to sell the Lorain. Catalogue and discount upon application.

MANUFACTURED BY

National Stove Co. Division American Stove Co. **Lorain, Ohio**

Western Branch
4th and Elm Streets, St. Louis, Mo.

Philadelphia Branch
31 North 2nd Street

LORAIN RANGES ARE ALSO SOLD BY

MARSHALL WELLS CO., Duluth, Minn., Winnipeg, and Portland, Oregon
PACIFIC STOVE CO., Los Angeles and Oakland, Cal.

The MASTER ECONOMY is a SPECIALTY

It is more different from the common run of stoves than any other practical heater on the market. It has a

Tremendous Sale

NEW IDEAS have been incorporated in the construction of this stove. It is a giant among others—

Chief of Them All

The Master Economy is a Specialty—the best specialty now before the trade. It is a base heater for hard coal, soft coal, or wood. A stove that is economical.

It is THE master of economy. Built well, durable. It is a heater that will sell

Because

It saves one-half the fuel.
It is noted for simplicity.
It is highly ornamented.
It is a heater that gives absolute satisfaction.
It pays a Good Profit.

MANUFACTURED BY

Comstock-Castle Stove Co.
Quincy, Ill.

STEEL CASING RINGS

Are Made to Conform to Individual Requirements in Every Respect

NEVER BREAK **CIRCLES PERFECT**

With Lugs—For Double Casings
Without Lugs—For Single Casings
Full Circles—For Ordinary Use
Partial Circles—For Full Cast Fronts

Always to Exact Circumference From Your Own Dimensions
Write Now

READY TO USE **INCREASE PROFITS**

THE WALWORTH RUN FOUNDRY CO., 27th St., S. W., Cleveland, O.

Makers of Fine Grey Iron Castings :: :: Mfrs. of Semi-Steel Registers

More Points of General Merit

are found in the

PEORIA LEXINGTON STEEL RANGES

than in any other

They have all the latest improvements of practical value to Steel Ranges. They are the best, most substantial, most perfect operating ranges made. There are

Many Good Features

embodied in the Peoria Lexington Steel Range. Thermometer in Oven, Large Fire Box, Duplex Grate, Deep Ash Pit, Large Bailed Ash Pan, Ash Chute, Large Pouch Feed Door with Register and Zero Drop Handle, Cast Iron Back Flue or Smoke Box, Oven Bottom very heavy, securely braced, NEVER BREAK OVEN DOOR (recently patented), High Closet Roll Top Door, Enameled Reservoir, Nickel Ornamentation very elaborate, elegant and attractive, Aluminized Oven.

Write for Printed Matter.

Culter & Proctor Stove Co.

Hamilton and Water Street PEORIA, ILLINOIS

Our Motto is and Always has been Not How Cheap—But How Good.

Any Dealer Can Make Money

By Selling

THE O-HI-O STEAM COOKER AND BAKER

It is being made known to more than **Ten Million Women** through our extensive advertising campaign. These women are constantly reading about the "O-HI-O" in all the leading publications. Through this extensive advertising, we are receiving **thousands of inquiries** from every town in the country, and these inquires are immediately referred back to our local dealer, (if we have one). A number of dealers have already taken hold of this extraordinary offer and say that the **O-HI-O STEAM COOKER** is the best; is a good A-1 seller and pays the largest profit.

Fine Electrical Display Stand, Display Cards and Literature furnished all dealers.

Remember—to sell the O-HI-O Steam Cooker and Baker means "To Make Money". You are surely in business for the profit you make. *Well, then, write*

THE O-HI-O COOKER CO., 531 Jefferson Ave., Toledo, Ohio

Three-Burner Style

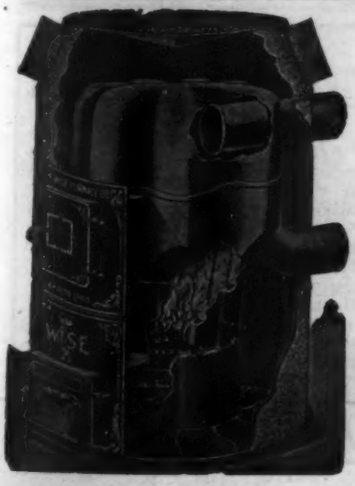
Champion Mission Cooker

Is something entirely new in Gas Cooking Stoves
Something Everybody Will Want

The Champion Mission Cooker, made of heavy steel and angle iron, nicely black japanned and strongly braced, having loose grate over each burner, is an **ideal, economical summer cooker,** for by the addition of an oven anyone can have a **first-class** permanent **gas cooking** and **baking apparatus** at about **one-third** the **cost** of a gas range. Made in two and three burner styles.

Don't be Too Late to Get the Agency
Order Now and Make Sure

The Champion Steel Range Co., Cleveland, O.

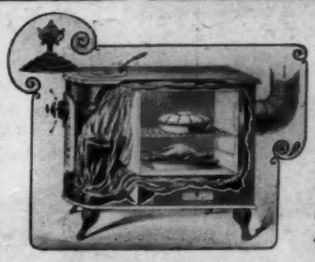


High Merit based upon proper construction makes the **WISE** a favorite in the hearts of those who are well informed and know real excellence.

GET A CATALOGUE AND
LEARN MORE ABOUT IT

The Wise Furnace Co.

AKRON, OHIO



Your name on a postal brings Catalogs and full information

Do a Paying Stove Business

We wish to tell every merchant who reads this ad. how he can make big money handling our **Wonderful Cosby Patent Bakers and Heaters.** No more useful or salable household article on the market.

UNION STOVE COMPANY, Inc., 501 Mutual Bldg., Richmond, Va.

We Stand for the Cast Iron Furnace

First, Last and Always—Why?

BECAUSE experience has proven that they are the only furnaces made that will resist the destroying elements of fire for the longest period of time, and under the most severe tests. Besides they are impervious to the action of rust.

THEY WILL NOT RUST OUT WHEN NOT IN USE

The furnace dealer who handles carloads, as well as the one who installs but one or two a year, will find in the **MONITOR** line, a **FURNACE** for **any** kind of **fuel,** and a variety of sizes together with all the up-to-date features which has made this line the most popular throughout the Middle West.

Let us quote you on FURNACES, REGISTERS and FITTINGS

KEITH FURNACE COMPANY, Mfgrs., DES MOINES, IOWA

McKELVEY & YOUNG, 200 Broadway, Monmouth, Ill. Distributors for Illinois Territory.
B. LANGE, Sparta, Wisconsin. Distributors for Southern Wisconsin.
Council Bluffs Sheet Metal Works, Council Bluffs, Iowa. Distributors for territory west of Missouri River.

Ranges CHEAP—Not CHEAP Ranges

You can buy of me, steel ranges that will outclass any catalogue-house ranges. **Positively the best ranges obtainable for the money.**

Willard Steel Ranges

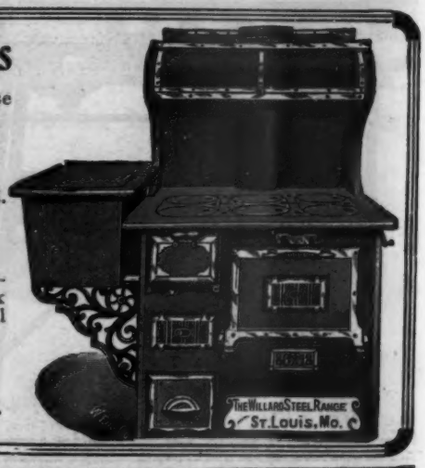
are good, honest quality, durable, economical ranges at a **L-O-W P-R-I-C-E.** They are made well, bake well, cook well and **Sell Well.**

QUICK SELLERS—GOOD PROFIT

There is an enormous demand for **Willard Steel Ranges.** Extensively advertised; people know them—want them—and the quicker you get them in stock the more money you'll make. For the good of your pocket book—write—I will make you the greatest proposition on ranges ever offered.

YOUR OWN NAME PLATE ON RANGES ON ORDERS OF TEN OR MORE.

WM. G. WILLARD, Room No. 28 Willard Bldg., (316 CHESTNUT STREET) **St. Louis, Mo.**



A Money-Making Proposition

TO sell the **O-HI-O** Steam Cooker and Baker means **"TO MAKE MONEY."** The O-HI-O Cooker through an extensive advertising campaign, is being made known to more than **TEN MILLION WOMEN** who are interested in just such a time, labor and money-saving device that will reduce their fuel bills.

Through this advertising we are receiving thousands of inquiries from every town in the country and (if we have a local dealer) these inquiries are immediately referred back to the local dealer. Our advertising is creating such a demand for the O-HI-O Cooker that we need more dealers to sell it. Many have already taken up the sale of the "O-HI-O" and they say it's the best selling Cooker. Pays the largest profit.

The O-HI-O is the best—most perfect cooker on the market today.

There is no **reason** on earth **why you should** not **sell the "O-HI-O."** Other dealers are making money on the "O-HI-O," and you can do the same.

Fine electrical display stand, display cards and literature furnished all dealers.

SEND FOR OUR CATALOGUE.

THE O-HI-O COOKER CO., 531 Jefferson Ave., Toledo, Ohio

Large Radiating Surface Important

It is the radiating surface which determines the amount of heat a furnace is going to get out of the fuel used. The size of the fire pot determines the amount of fuel a furnace will burn.

Lennox Torrid Zone

steel furnaces have very large radiating surface nearly doubled in area by the extra indirect radiator through which the hot smoke is made to pass for eight feet of smoke travel. A hanging partition in this radiator causes the smoke to descend within eight inches of the bottom of the radiator before passing up the other side. This is longer smoke travel than any other furnace has and is possible only by reason of the convenient direct and indirect draft change. In Torrid Zone furnaces the indirect draft does not have to be strong enough at all times to permit of opening the fuel door for the direct draft can be had at one pull of a damper rod. Thus when fuel door is closed and damper is turned for indirect draft more of the hot gases can be held back from escaping up the chimney and used as fuel. This makes Torrid Zone furnaces fuel savers. It is only one of the many great selling points of this furnace.

WRITE FOR 40-PAGE CATALOG

Lennox Furnace Co.

Marshalltown, Iowa

The "PATRIC" FURNACE

The furnace with the **COKING and SMOKE - BURNING MAGAZINE.** No other furnace has it. The one which the dealer can recommend for soft coal because the Coking Magazine burns soft coal scientifically; burns the smoke; saves the fuel; makes the heat.

HARD COAL and COKE are more conveniently burned than in other furnaces. How is all this accomplished?

Send for the new **"Blue Booklet."** It will tell you why. Just out of press. It will interest you.

THE PATRIC FURNACE CO.

SPRINGFIELD, OHIO

ROBINSON TUBULAR FURNACES

ARE THE ONLY TUBULAR FURNACES

Having Direct Draft and Return Flue

WITH LONG FIRE TRAVEL

Large Radiating Surface
Seamless Boiler Flue
Broad and Deep Ash Pit

The Dust Flue with Damper Allows

NO ASHES WHATEVER

To pass out into basement

ALL ROBINSON TUBULAR FURNACES

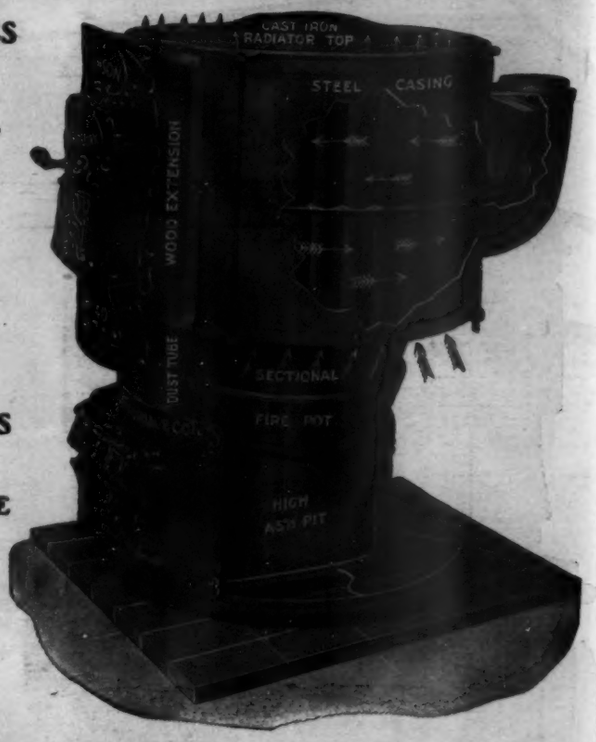
Are supplied

WITH THE CELEBRATED ECLIPSE GRATE

The fire travels farther in the "Robinson Tubular" than in any other furnace — more heating capacity, also

REDUCE COAL BILLS

Send for Catalogue



ROBINSON FURNACE COMPANY, 107-109 Lake St., **Chicago, Ill.**

1849 **BOYNTON** 1907

BOYNTON'S PATENTED SQUARE POT

Warm Air Furnaces

Hot Water Heaters and Steam Boilers

Have stood for an honest value for nearly sixty (60) years—more than half a century. Their reputation has a firm foundation. They were the best then, they ***are the best now. Always first*** with every ***real improvement.***

Boynton Furnaces are made of cast iron or steel, or combination of both—portable or brick set—for hard or soft coal, wood, lignite, or any fuel, and are adapted for any climate.

The New Patent Square Firepot Found in all Boynton Furnaces.

STEEL DOME

ADMIRAL

Boynton Furnaces have built a ***reputation*** for many dealers and they will do the same ***for you.***

DO YOU WANT ***To build*** a reputation for yourself
To increase your business
To satisfy your customers **SELL THE BOYNTON**

Catalog and Prices Cheerfully Sent on Request

THE BOYNTON FURNACE COMPANY, 147-149 Lake St., Chicago

J. H. MANNY, C. E. MANNY, Chicago Managers NEW YORK OFFICE, 207-209 WATER STREET

WHOLESALE AGENTS:

J. C. BAYER FURNACE CO., Portland, Ore. FINLAY & ROBB, Seattle, Wash. WM. BROWN, Spokane, Wash.

Monarch Air Blast

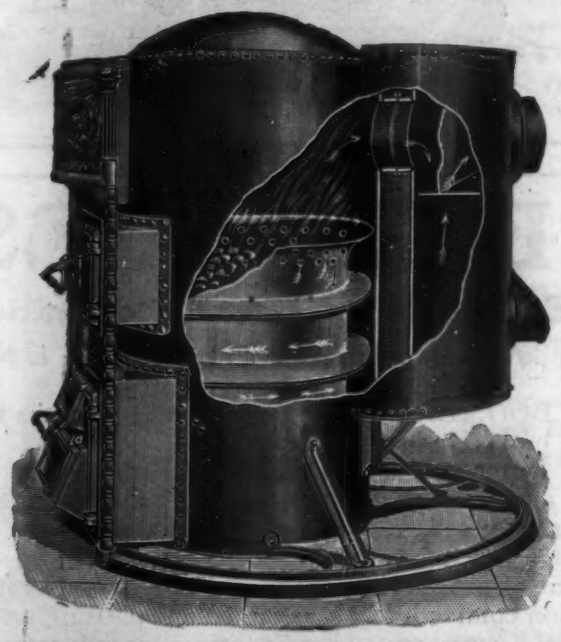
All the advantages of our famous MONARCH plus the air blast. This is a sectional upper fire pot constructed so that oxygen is fed into and above the fuel burning the gases, assuring economy, cleanliness. It is the most practical soft coal furnace offered the trade.

Forest City Foundry & Mfg. Co.

CLEVELAND, OHIO

Mfrs. The Imperial, Niagara and Combination Furnaces, Registers, Mail Boxes, Hitching and Sash Weights, Etc. Write for our new Catalog.

The WEIR All Steel Gas and Soot Consuming Furnace



THE PIONEER STEEL FURNACE

25 Years of Success.

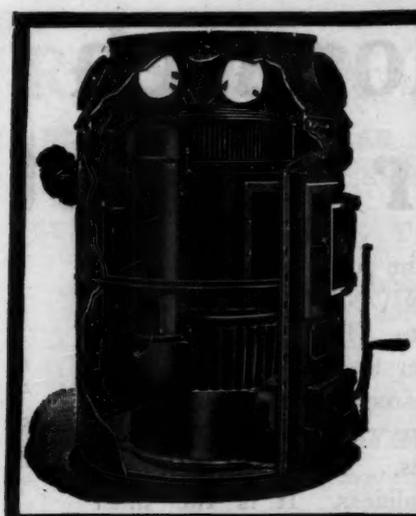
GASLESS
DUSTLESS
SOOTLESS

Will Last a Lifetime

MADE BY

THE MEYER FURNACE CO.

PEORIA, ILL.



The Record of the

FLORAL CITY FURNACES

During the past ten years has never been equalled. They are, as a line, the **BEST FITTED AND MOST POWERFUL, ECONOMICAL AND DURABLE FURNACES MADE,** and we stand ready to prove this at any time by actual test. Perfect castings, skillful workmanship, careful supervision, these are the features that mark the superiority of the Floral City.

Monroe Foundry & Furnace Co., Monroe, Mich.

MR. DEALER

Do you know that the

New Akron Air Blast Furnace

is the leader today?

It's a furnace that will mean **business for you,** money in your pocket, satisfied customers and a host of other things.

It is a good, honest quality, first-class, up-to-date, economical, durable furnace.

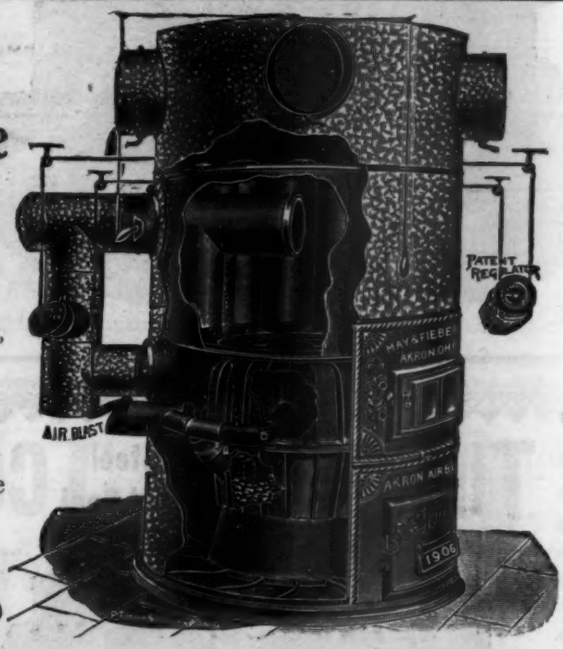
There's no fancy price attached to the

NEW AKRON AIR BLAST FURNACE

but there is a **good profit** in it for the dealer that sells it.

SEND FOR CATALOGUE

May & Fiebeger, Akron, Ohio



BOOMER FURNACES

Quickly Establish a Local Reputation

It is always a little hard to introduce an old Furnace in New Territory.

But the first BOOMER Furnace you sell will pave the way for an unlimited profitable furnace business.

It is likewise better to take an old, time-tried furnace like the BOOMER, and sell it in new territory, than to continue selling, or endeavoring to sell, a Furnace that does not "stand up" the way you would like to have it.

The BOOMER Furnace is one of those always-reliable, sure-to-give-satisfaction commodities that is a genuine pleasure to sell.

The BOOMER Agency, remember, has attractive inducements.

We'll gladly send you our Furnace catalogue upon request.

The HESS-SNYDER COMPANY

Manufacturers **MASSILLON, OHIO**

DON'T BORROW TROUBLE

You are borrowing trouble every time you install a furnace of cheap construction—your troubles never end with such a job.

Insure against trouble on your heating jobs by installing the MUELLER Double Radiator, All-Cast Furnace.

Not a bolt, screw or rivet used in its construction. Positively gas tight. Lasts a lifetime.

The MUELLER Double Radiator All-Cast Furnace costs more than the cheap kind—but your customers will gladly pay the difference.

Do you wish the agency?
If so, write for it to-day.

L. J. MUELLER FURNACE CO.

191 REED STREET ESTABLISHED 1857 MILWAUKEE, WIS.

TO THE FURNACE MERCHANT:—

Here's a first-class house to heat—how would you like to have a book in your possession that would answer the following questions **absolutely,** not approximately:—

The right size of Furnace to install?—The proper size of warm air pipe and riser for each room?—The proper size of each Register?—The proper size of Cold Air Duct?—The proper size of Main Ventilating Shaft?—The proper size of each Ventilated Duct?—The proper Location for the Furnace?—The proper method in which every item of the installation is to be accomplished?

The Novelty Furnace Handbook will give you all this information in such a clear and **simple form** that you will have no difficulty in applying it. And **we stand fully** and **completely responsible** for the proper heating and ventilating of the house if the rules laid down in this book are applied.

ABRAM COX STOVE COMPANY

American and Dauphin Streets, PHILADELPHIA

15 to 19 WEST LAKE STREET, CHICAGO NO. 6 PORTLAND STREET, BOSTON

A Furnace With Special Features

Which will appeal to your customers with a big margin of profit is what you are looking for. Why sell a Furnace almost like your competitor's? A man to make money must get a specialty and push it. It costs no more than any good furnace and sells a great deal easier.

HEAVY—DURABLE—ECONOMICAL

Hot Air Blast Fire Pot which allows the heated air to pass into and over the fire, converts the gas and smoke into heat ***reducing coal bills.***

Double Feed Doors which admit large chunks of coal.

Long Distance Heating by means of the oval opening through the center of radiator. The rooms fartherest from the furnace can be as easily heated as rooms with short runs. Heavy radiator with ***long smoke travel,*** provided with ***direct draft*** and cleanout.

Grate bars ***each operating independent*** of the others, three outer supports instead of one inner support; ***deep ash pit, large combustion chamber; water coil pocket; one-piece base ring; large hot air chamber.***

WRITE FOR DISCOUNTS! ORDER A SAMPLE

Green Foundry and Furnace Works, (Dept. A) Des Moines, Iowa

Heavy Steel Furnace

With Cast Iron Head

Made of the best quality of

Very Heavy Boiler Plates

with front and back radiator.

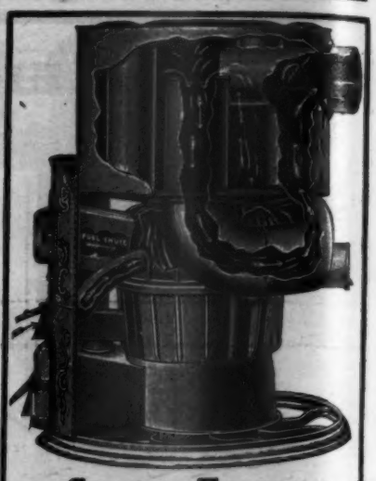
Great Economy of Fuel.

Extraordinary Power and Quick Heating Capacity.

Absolutely Gas, Smoke and Dust Tight.

Write for printed matter and prices.

Walter S. Rait & Co.
211-213 Lake St., Chicago, Ill.



The Canton Furnaces

Long Draft returning through main radiator. Clinker Punch for cleaning grate. No other furnace has these features.

Big Steel Radiator — Tubular. Perfect Blast Device. Not in the cheap class. DO YOU SELL THEM?

THE BONNOT CO., Canton, Ohio

Economy, Cleanliness and Durability all combined in the

MONCRIEF
WARM AIR FURNACE

A few of the many good points of the **MONCRIEF**

- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

HENRY & SCHEIBLE CO.
825-29 Long Ave., N.W. CLEVELAND, O.
Western Sales Agent—J. C. KIMMEL, 3314 E. 15th St., Kansas City, Mo.

A New Webster Dictionary

We invite special attention to the fact that the latest previous complete Webster is 17 years old, and quite out of date.

A single page in this book (1089) defines **36 words** not found in Webster's International Dictionary; another page (1177) defines **23** such words. **RADIUM, the various RAYS, TRUST, BANZAI, GARAGE, SHIMOSE,** etc., and all other modern words, also old words with modern meanings, such as **GRAFT,** are properly defined.

READ THIS

Number of pages from A to Z in Webster's International (Issued in 1890) 1681 pages. Webster's Imperial (JUST Issued) 1956 PAGES, and with its Appendix a total of 2173 pages.

Size 8¼x11½x4½ inches, weight 14 lbs. Bound in Sheep and Thumb Indexed. **New price—only** - - **$5.00**

WE ALSO ISSUE

Webster's Inter-Collegiate Dictionary
1200 Pages. **Leather, $2.50. Cloth, $1.75**

Webster's Adequate Dictionary
675 Pages. **Leather, $1.75. Cloth, $1.25**

Webster's Sterling Dictionary
550 Pages. **Leather, $1.00. Cloth, 60 cents**

Printing these three abridged dictionaries on BiblePaper, the best, most expensive and strongest thin paper made, insured the production of very desirable and compact books containing everything that lexicons twice their size could possibly contain if printed on ordinary book paper.

GEO. W. OGILVIE, Publisher, Chicago, Ill.

LION FURNACE

Can Use Hard or Soft Coal

Giving the greatest heat with the least fuel. Pot interchangeable with our Apex furnace. Durable, simple in construction and a fine seller.

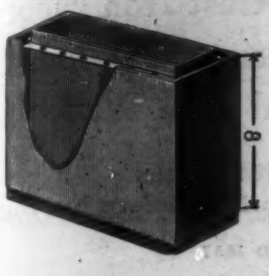
Write to-day for Catalogue.

ROOD & McINTYRE,
Kansas City, Mo.
Southwestern Distributors.

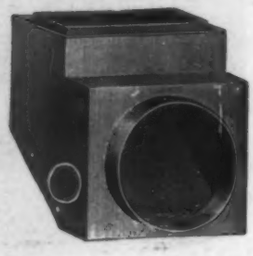
Youngstown Furnace & Supply Company
YOUNGSTOWN, OHIO

THE AMERICAN ARTISAN Keeps You Posted.

The Michigan Safety Furnace Pipe Company



Corner Brooklyn and Abbott Sts.
DETROIT, MICHIGAN



Manufacturers of Safety Wall Pipe and Single Pipe and Fittings, in Both Tin and Galvanized Iron

Our customers deal with us direct and us only. We do not consult with nor take instructions from any commissioners, trust or corporation. Our agreements are only with our patrons and for their benefit.

Send for Our 1907 Catalogue **Our New Factory Insures You Prompt Delivery**

Don't Get Our Name Confused With Other Manufacturers

We Make It!

The BEST Air Drying Iron Enamel Made.

Try a 1-Dozen Case From Your Jobber

Nickel Plate Stove Polish Co.,
CHICAGO.

Large 10 oz. Can.

Martin Timmer, Knox, No. Dak., writes:

"Please stop my 'ad' (situation wanted) in your paper, as I have had dozens of letters in reply and have found the position I wanted."

GILT EDGE BADGER FOR HARD COAL

COMBINES ALL THE FEATURES
necessary to make it a most convenient perfect working and economical furnace.

CAST FIRE SECTION
with steel dome and return flue radiator.

PERFECTLY BUILT
and perfectly mounted and having the best of all modern conveniences. Made in 20, 23, 26 and 29-inch fire-pots.

CATALOGUE ON APPLICATION

R. J. SCHWAB & SONS' CO.,
MILWAUKEE, WIS.

REGISTERS

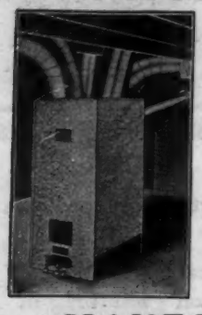
Semi-Steel Floor—Cast Iron Floor
Wrought Steel Special Side Wall
Cast Iron Special Side Wall

We make them all—in all finishes
Get our prices before buying

ESTABLISHED 1857

L. J. MUELLER FURNACE CO., 191 REED STREET, Milwaukee, Wis.

NATURAL GAS FURNACE



The "MANEST"

will heat any house better and cheaper and with less labor than any other system.

The
MANNEN & ESTERLY COMPANY
Sole Manufacturers CLEVELAND, O
TO BE ATTACHED TO ANY COAL FURNACE.

Heavy Wrought Steel Fame, Body and Hopper.

Neat cast door which automatically locks itself open or shut. Door closes flush with the wall. Made in three sizes.

Secure the Agency NOW.

The Chappell Furnace Co.
MORENCI, MICHIGAN
1005 Monadnock Bldg., CHICAGO, ILL.

One of the Sure Sellers

THE MAJESTIC

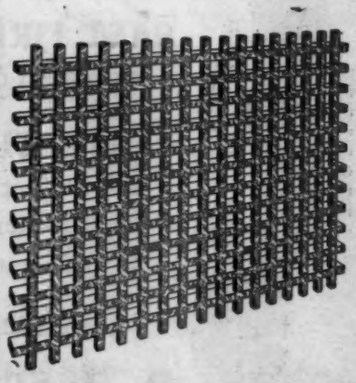
Coal or Wood

CHUTE

HEAT LIGHT
FOR THE
HOME
STORE
HOTEL
SCHOOL
CHURCH
OFFICE
COLLEGE
THEATRE
FACTORY
VILLAGE
INFORMATION FREE
SEND FOR IT.
DETROIT HEATING AND LIGHTING CO.
DETROIT MICH

Use Hard Wood Cold Air Register Faces

WITH THE FURNACES YOU SELL THIS SEASON



It will be a strong advertisement for you—and be the means of selling you many Furnaces.

THEY APPEAL TO ALL WHO SEE THEM

Be first—don't let your competitor have them before you.

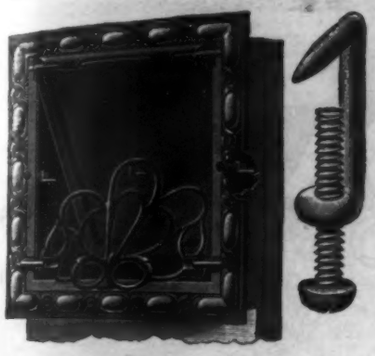
Equally as strong as iron—and give as much air space—if you have them made to the edge of the border of the iron ones.

They Fit Flush with the Floor.

65c the Sq. ft.

Our printed matter for the asking.

THE WOODEN VENTILATOR CO.
EAST PALESTINE, OHIO



Hold Fast Hook and Bolt Device
Patent Pending

Symonds Wall Register

Showing New Holdfast Hook and Bolt Device.

One of the styles we make to install above baseboard — installation not necessary until building is finished.

New Hook and Bolt device eliminates tin strap, rivets, cleats, wood, screws, wire and nails. No breaking of plaster. Conforms with strictest fire laws. Saves time and money. Do you catch on, the hook does.

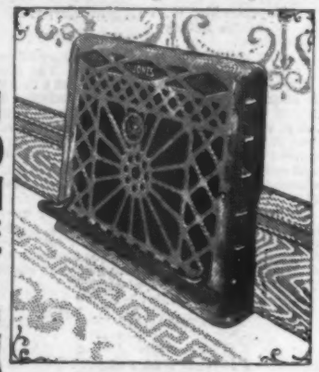
SYMONDS MFG. CO., EAST ST. LOUIS ILLINOIS

THE
Improved
JONES
Registers

Are the most thoroughly tested and practical, fuel saving regist rs manufactured.

Absolutely Fireproof

JONES



JONES

Improved
JONES REGISTERS

Render modern furnace work less complicated, insure **perfectly** working warm-air heating plants, **reduce the cost** of installing furnaces, and at the same time **increase** their **efficiency** and make **failure** almost **impossible.**

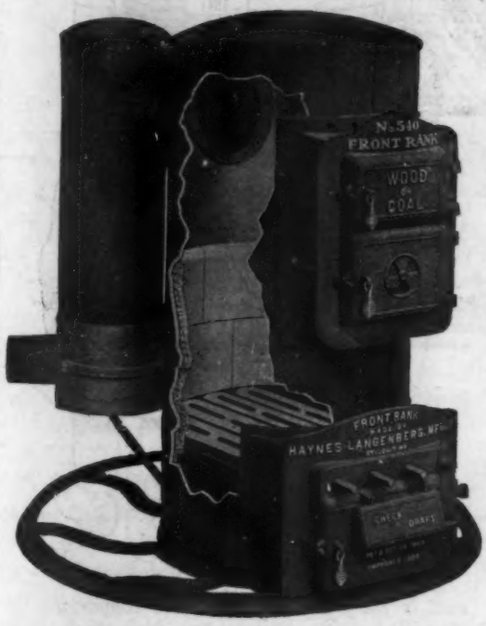
Send for our printed matter and learn more about

***The* Improved Jones Register**
Manufactured by the
United States Register Co., Ltd
BATTLE CREEK, MICH.

BRANCHES:
104 2nd Street, N., Minneapolis, Minn.
732 King St., West Toronto, Ont., Can.

DISTRIBUTORS:
Standard Metal Co.....Indianapolis, Ind.
F. Meyer & Bro.....Peoria, Ill.
Lennox Furnace Co .....Marshalltown, Iowa
The Stambaugh-Thompson Co., Youngstown, Ohio
Peck-Williamson Co.....Cincinnati, Ohio
J. M. & L. A. Osborn Co..... Cleveland, Ohio
May & Fiebeger..... Akron, Ohio
Standard Bros., Ltd.....Detroit, Mich.
W. Brummeler's Sons.....Grand Rapids, Mich.
Syracuse Stove Works..... Syracuse, N. Y.
Arthur H. Merriam, New York, N.Y., 132 Pearl St.
The McClure Co.....Pittsburg, Pa.
Merrick-Anderson Co.....Winnipeg, Man
Pirant & Co.....Brussells, Belgium
V. Lowener.....Copenhagen, Denmark

Front Rank Furnaces



Are growing more popular **every day.** The increased business necessitated a **New Factory.** We are building it. **33,000 ft.** of floor space, equipped with the **best** and **latest machinery.** Get in the **Band Wagon** and order the Front Rank Steel Furnace.

Haynes-Langenberg Mfg. Co.
ST. LOUIS, MO.

SOME MORE BOOKS

A Series of Practical Volumes with Numerous Illustrations.

"*Practical Draughtman's Work,*" 226 illustrations. This one contains many points relative to this line of work. $1.00 prepaid.

"*Practical Gas Fitting,*" 120 illustrations. This one contains all practical points connected with gas fitting of every description. $1.00 prepaid.

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Any one of these books and all others of any line can be secured upon receipt of price, prepaid by addressing

DANIEL STERN, - - 69 Dearborn Street, Chicago, Ill.

ROUND OAK
STANDARD OF AMERICA

Fayetteville, W. Va., March 21, 1907
P. D. Beckwith Estate.
Gentlemen:

The indications are that I am going to have success in selling your ranges. The one you shipped on approval I have sold, and I think I can place the other you shipped on arrival. I believe it would be a good idea for you to ship me, say, about three more. One like the first one you shipped and I would like one with thermometer and hot water attachments, as people do not understand just what your hot water attachments are, and in fact, I hardly know myself.

Kindly rush these stoves and if you have plenty in stock, and care to do it, you might ship a few more than this order, so I can have them here in case I should have a demand for them, as it takes a long time to get your goods by freight.

Yours truly,
W. B. JONES.

The above letter was received in the regular course of business and is published verbatim. The first range was shipped to Mr. Jones at the request of our salesman, and it is evident that he believes the Chief to be the best range he ever saw. It leaves no chance for argument. The Chief inspires confidence. It is just as good as it looks. It sells. It suits the purchaser—one sold sells another. Order a sample—see the range, and enjoy showing a range your competitor cannot equal.

ESTATE OF
P. D. BECKWITH
(Incorporated)
FRED E. LEE, Pres. and Gen. Mgr.
DOWAGIAC, MICHIGAN
Makers of Good Goods Only

"This, Fritz, is the first real warm and comfortable moment I've had since leaving the Sahara!"

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00. IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.

Address all Letters, communications, and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,

69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.

THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, MAY 18, 1907.

THE Italian government has decided to electrify its railways at an expense of many millions of dollars, and there are plenty of others to follow this example. Every such decision means an increased demand for copper.

IT IS estimated that the demand for pig iron this year will be several hundred thousand tons in excess of the possible capacity of the furnaces, and it looks as if the man who will get the iron will be the man who is willing to pay the price.

PIG IRON production at the beginning of the month of May was greater than at any previous time, the weekly capacity of the furnaces in operation May 1st being 523,912 tons, as compared with 497,456 tons on April 1st, and constituting a new record for the United States.

A NEW ARRIVAL among our exchanges is The Wisconsin and Northwest Trade Journal, which makes its bid for the patronage of the retail trade in the territory of which LaCrosse, Wisconsin, is a jobbing center. It is to be published monthly, with W. E. Barber as manager, the publication office being in the McMillan Bldg., at LaCrosse. Promises of future excellence of a novel character are made by the publishers in their introductory article and the first issue is very readable. It contains 68 pages of live matter and devotes considerable space to the catalogue-house question.

MR. E. H. GARY, replying to an announced intention of Mr. Harriman that claims for damages on account of defective rails sold to the Union and Southern Pacific railroads would be entered, said that the rails were manufactured according to express stipulations, under direct supervision and tests by inspectors for the railroads, but that they were too light for the heavy equipment and high rate of speed now in practice. Mr. Gary said that a 110-pound rail should be used, whereas the heaviest is now 90 to 100 pounds. Conditions of travel have changed and rails must be changed to meet them. Mr. Gary, as chairman of the Steel Corporation, could hardly be expected to admit defects in manufacture.

THERE is a world of significance and sound sense in the following excerpt from a recent report by Mr. H. H. Morgan, United States consul at Stuttgart, Germany: "I can understand that the vast commercial and industrial prosperity at home has made many of our merchants and manufacturers indifferent to the foreign trade, but the time will come when they will need a foreign market for the overproduction of their factories, and I think it timely now, in the days of prosperity, to sound a note of warning to prepare during our hour of commercial peace for the hour of commercial war."

Defects in Steel Manufacture.

IN PLACING an enormous order for steel rails the Pennsylvania Railway Company has specified that certain changes shall be made in the method of manufacture with a view to improving the quality of the rails. A number of inspectors have been appointed by the road to see that the specifications are complied with at the mills.

It is charged that hurried methods of manufacture in the past have sometimes lowered the quality of Pittsburgh steel rails and Mr. E. H. Harriman recently made the public announcement in New York that so many rails had broken on his lines during the year that his managers had asked him to call the attention of the rail makers to their defective work. It is said to be likely, in view of such facts, that the United States Steel Corporation will inaugurate a general movement toward better work at the mills and it is understood that great improvements to this end are contemplated by the Corporation. It is intimated that there will not be any increase in the common dividends of the Corporation for at least a year, in order that the surplus may be used for betterments in machinery and methods.

In the past, it seems, speed in manufacture has been the chief consideration at the mills and quality apparently has been sacrificed to secure speed. Now that the railway interests are beginning to complain of defective work, it is certain that steps must be taken to link quality and speed together, before our important steel trade suffers from the disclosure of defects in the products of the mills.

The Railroads and the People.

PRESIDENT W. W. FINLEY of the Southern Railway Company is doing some remarkably successful missionary work in bringing about a better understanding between the public and the railways. He believes that close and harmonious co-operation between them is necessary to the material and social advancement of the country, and in a tactful, diplomatic way he is engaged in the laudable endeavor to bring about such co-operation.

As concerns the carriers of any section and the

people they serve, Mr. Finley believes and says that no two interests were ever before more interdependent or more identical. He believes that they should stand shoulder to shoulder in the great battle of industrial supremacy, where section against section and country against country contend. The section with a narrow and hurtful policy towards its railways, he says, must abandon the hope of commercial supremacy and he urges that all business men, impelled by their own self-interest, should be active, militant advocates of fair play for the railways and of preserving their ability to increase and improve their service.

The keynote of Mr. Finley's public addresses, which are gaining the ear of a constantly widening constituency is found in his statement that every patriotic man who has the prosperity and progress of his community at heart should do his utmost to protect and preserve the ability of the railways to provide the additional transportation facilities that the business interests of the country imperatively demand.

Mr. Finley is soon to address the hardware manufacturers of the country in convention assembled, and can be relied upon to speak interestingly and instructively of the important subject of which he is an acknowledged master.

Imports of Manufacturers' Materials.

UNUSUAL activity among the manufacturers of the United States is indicated by the record which they are making in the importation of foreign materials for use in their industries. The figures covering three-quarters of the fiscal year which ends with next month show a more rapid growth in importation of manufacturers' materials than that of any other class of imports, and indicate that the total value of manufacturers' materials imported during the full fiscal year 1907 will exceed by far that of any earlier year. In the nine months ending with March of the present year, crude materials imported for use in manufacturing show an increase of 51 million dollars, against an increase of but 18 millions in the corresponding months of the preceding year; while the group "manufactures for further use in manufacturing" shows an increase of 44 million dollars, against an increase of but 30 millions in the corresponding months of the preceding year.

The figures indicate that the value of materials imported for manufacturing purposes, whether crude or partially manufactured, will in the fiscal year 1907 exceed by more than 100 million dollars that of any preceding year. In the fiscal year 1906 crude materials for use in manufacturing showed a gain of but 25 million dollars and manufactures for further use in manufacturing a gain of 42 millions compared with the imports of the preceding year. In the fiscal year 1905 crude materials showed a gain of 68 million dollars and manufactures for further use in manufacturing a gain of 17 millions over the imports of the preceding year; while in 1904 crude materials showed a reduction of 10 million dollars and manufactures for further use in manufacturing a loss of 35 millions compared with 1903. In 1907 it seems probable that crude materials imported will show an increase of nearly 70 million dollars and manufactures for further use in manufacturing a gain of over 50 million dollars over those of last year.

This increase in materials for use in manufacturing occurs in nearly all articles. Copper bars, pigs, and ingots show importations aggregating 145 million pounds, against 128 millions in the corresponding months of the preceding year; iron ore, a total of 757 thousand tons, against 689 thousand tons in the corresponding months of the preceding year; tin, a total of 75 million pounds, against 67 millions in the corresponding months of 1906.

A few articles show a slight reduction in importations measured by quantities, but in nearly every case the value, even of those articles, shows an increase indicating an advance in prices.

That much higher prices are being paid for the manufacturers' materials and many other of the articles now imported than those of even a single year ago is apparent from a critical examination of the statistics, which show quantities and values of various articles imported, and the average import price per unit of quantity in March, 1907, compared with that of March, 1906. Lumber shows an average import valuation of $18.56 per thousand feet, against $17.23 in March of last year; tin, in bars, blocks, and pigs, 41.1 cents per pound, against 34.2 cents in March of last year; tin plates, 3.4 cents per pound, against 3 cents in March of the preceding year; copper, in pigs, bars, etc., 21.9 cents per pound, against 17 cents in March of the preceding year, and coal, $2.83 per ton, against $2.41 in the same month of last year.

In many articles other than manufacturers' materials the import prices also show a marked advance, and the past year can certainly be said to have made a record for high prices.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

A correspondent of THE AMERICAN ARTISAN, who signs himself "Retailer," announces his belief that I "must have a grouch" because I recently deprecated the fact that the Larkin soap people of Buffalo, N. Y., are giving away Garland stoves and ranges as premiums with their products. "Retailer" asks what business it is of mine if the Larkin people or the Garland people give away their stoves, and he accuses me of being one-sided in condemning the Larkin plan. Incidentally he says he likes to read "Mr. Arnold's articles," and for this portion of his letter I hereby tender him my sincere thanks and congratulations on his good taste.

Yes, Mr. Retailer, I confess I am one-sided—and I try to be. I am one-sided on the side of justice and fair play. I am one-sided on the side of the hardware man and stove dealer who is trying to make an honest living out of his business—and in his behalf I oppose the idea of forcing the sale of soap by presents of stoves and ranges. I am one-sided on behalf of the stove dealer when I say that the stove makers who encourage this premium idea are not giving the stove dealer a square deal.

My attention was called to the Larkin stove business by a firm of Western merchants who condemned the

idea as likely to hurt their interests, and I was just one-sided enough to be ready to take up the cudgels in their behalf.

I do not care much how many Garland stoves are given away with so many pounds or so many tons of soap—and perhaps it is none of my business what the Garland people or the Larkin people do with their products. But I do care—and it is my business—when their methods threaten the interests of the stove retailer and the latter begins to kick. I did not "butt into" this controversy until my attention was called to it in a legitimate way, as a dealer's grievance, and the interest I then took in the matter was a legitimate interest if I am to maintain my standing and reputation as an unbiased champion of the retail trade.

I say that this stove premium idea of the soap manufacturers militates against the best interests of the retail hardware trade, and I therefore do not hesitate to condemn it. And it is clearly up to the manufacturers who furnish the stoves and ranges given away with the soap to set themselves right with the trade.

* * *

Another correspondent hands me a bouquet for bringing the Larkin-Garland deal into the fierce light of publicity and says the Garland people are injudicious to allow their stoves to be given away as premiums in territory where they have regular stove dealers or hardware stores handling their line. This is the view of the case that will be taken, I believe, by nine dealers out of every ten. Surely the trade has enough to contend with at all times in meeting various kinds of competition, without being stabbed in the back by stove makers allied with premium concerns.

The lines in the popular song, "This is the day they give babies away with half a pound of tea," will have to be changed to read, "This is the day they give ranges away with a bar or two of soap." That is, unless the righteous indignation of the retail trade puts a stop to this Larkin scheme.

* * *

Even as I write the mail brings me an inquiry from an Iowa firm of hardware retailers who, having read what I had to say on the subject recently, wish to know whether the Garland stoves offered by the soap people are those made by a certain Detroit concern. This shows plainly whether or not the retailers are interested in the idea, and is my justification for taking the matter up.

* * *

I am informed by an esteemed contemporary that the "annual meet" of the Arkansas Retail Hardware Association will be held in Little Rock, Ark., on June 11, 12 and 13. I always had the impression that the word "meet" was applied only to gatherings of persons with sporting proclivities— and right here I catch myself in the act of suggesting that maybe there was method in the madness of my contemporary—perhaps the convention of the Arkansas Retail Hardware Association is a sporting event. Perhaps!

* * *

The man who claims to be "ahead of the game" is sometimes like the dog in a story I heard told at a Chicago dinner the other day. A Western rancher had been sadly troubled by coyotes and told his troubles at the general store in the nearest town. He was advised to buy a big dog named Pete, locally reputed to be death on coyotes. He did so, and took Pete back to the ranch with him. When next in town the rancher was asked how Pete was getting along.

"Why," he said, "this morning early I heard a terrible howling and barking in my front yard. On looking out of the window I saw Pete and a coyote racing round and round the house at a tremendous rate, keeping up the most infernal racket all the while."

"Did Pete catch him?" asked one of the loungers in the store.

"Catch hell," said the rancher. "Pete was ahead!"

* * *

In one of the corridors of the Hotel Astor during the recent convention of stove manufacturers in New York, I found the following verses, which I think will appeal to many of my friends who have acquired the convention habit:

I dreamed that I dwelt in the Isle of Cracked Ice,
  In the midst of a lake of champagne;
Where bloomed the mint julep in meadows green
  Amid showers of lithia rain.
I reclined on a divan of lager beer foam,
  With a pillow of froth 'neath my head,
While the spray from a fountain of sparkling gin fizz
  Descended like dew on my bed.
From faraway mountains of crystalline ice,
  A zephyr, refreshing and cool,
Came wafting the incense of sweet muscatel
  That sparkled in many a pool.
My senses were soothed by the soft, purling song
  Of a blooklet of pousse cafe,
That rippled along over pebbles of snow,
  To a river of absinthe frappe.
Then, lulled by the music of tinkling glass,
  From the schooners that danced on the deep,
I dreamily sipped a high ball or two
  And languidly floated to sleep.

And then I awoke on a bed full of rocks,
  With a bolster as hard as a brick;
A wrench in my neck, a rack in my head
  And a stomach detestably sick,
With sand in my eyes and a grit in my throat,
  Where the taste of last evening still clung,
And felt a bath towel stuffed into my mouth—
  Which I afterwards found was my tongue.
And I groped for the thread of the evening before
  In a mystified maze of a brain
Until a great light burst upon me at last—
  "I'm off of the wagon again."

There is a world of heart interest in these touching lines. Such dreams are not uncommon at convention times, but of course it was not a stove man who wrote so feelingly of his pleasant slumbrous experience and the awful awakening of "the morning after."

"Give me the man who can hold on when others let go; who pushes ahead when others turn back; who stiffens up when others weaken; who advances when others retreat; who knows no such word as 'can't' or 'give up'; and I will show you a man who will win in the end, no matter what opposes him, no matter what obstacles confront him."—Orison Swett Marden.

News Siftings

Mr. H. L. Mosher of the Estate of P. D. Beckwith, Inc., Dowagiac, Mich., was in Chicago May 17 and reported business good.

The Reading Stove Works, Reading, Pennsylvania, has awarded contracts for the erection of three foundry buildings, 40x120 feet, and a fireproof brick warehouse, 50x60 feet.

The American Alcohol Stove Company has been incorporated at Milwaukee; capital, $25,000; incorporators, W. C. Shaffer, Charles M. Johnson and Cornelius Johnson.

The Cleveland Foundry Company of Cleveland, Ohio, will add a two-story addition to its new building recently completed, with equipment for the increased manufacture of oil stoves.

The Bristol Stove & Foundry Company, Inc., has been organized at Bristol, Va., with the following officers: H. R. Ripley, president; G. C. Harris, Cal George, Len George, all of Bristol.

Mr. Fred E. Lee, president and general manager of the Estate of P. D. Beckwith, Inc., Dowagiac, Michigan, sailed for Europe, May 9, accompanied by Mrs. Lee and Miss Mary Lee, for a tour which will last until September.

The Schellhammer Furnace & Stove Company will soon begin manufacturing at Warren, N. Y. The company is officered as follows: President, Horace Grary; vice president, C. Schellhammer; secretary and treasurer, C. J. Grary; manager, A. L. Schellhammer.

Consul Albert Halstead of Birmingham reports that the iron puddlers' wages in the Midlands of England were increased 6 per cent per ton of 2,240 pounds on April 8, or to $2.25 per ton. At the same time other mill and forge wages were increased 2½ per cent.

The Isthmian Canal Commission, Washington, invites proposals until May 24 to furnish steel bars, pumps, forcing presses, shaft pinions, twist drills, wrenches, nails, ranges, range boilers, saws, axes, ax handles, mattocks, grub hoes, wire, hinges, cotton waste, dynamo oil, etc.

The Annual Convention of the American Foundrymen's Association will be held in Philadelphia, May 21, 22 and 23. About thirty papers and addresses on technical subjects will be delivered. An exhibit will be made by foundry supply firms in the Second Regiment armory, opening Monday morning, May 20.

The Safety Manufacturing Company, recently organized at Spokane, Washington, to manufacture a safety lock-joint for stove and hot-air pipes, have opened a factory at Second avenue and Lincoln street, Spokane, and are now turning out goods. J. B. Argo is president of the company and J. A. Morrill secretary-treasurer.

The Standard Stove & Repair Company has taken over the stove repair business in New York conducted by the estate of A. Froelich and Fagan Brothers. The headquarters of the new concern will be at 287-289 Pearl street, corner of Beekman street, New York City. The buildings have been remodeled, and the company has decided to carry in stock a full and complete line of original stove repairs, also a large line of cooking stoves, ranges and heaters of standard make. The new headquarters were opened on Thursday, May 9.

Consul-General H. B. Miller writes from Yokohama that a steel foundry is to be established at Muroran, Japan, with a capital of $5,000,000. With the building of this foundry Japan will be rendered self-supplying in providing material for military and naval purposes. Two big English firms are stated to be behind the enterprise.

A large number of very clever advertising folders and mail enclosures have been originated by the publicity department of The S. Obermayer Company of Cincinnati. For instance, a barrel-shaped card calls the attention of the trade to the company's No. 702 Ceylon Plumbago, which "makes bright, smooth castings." The Obermayer motto, "Everything you need in your foundry," is found on every piece of advertising matter. Several slips call attention to the special telegraph service of the company, and say: "We have private wires—both Western Union and Postal—in our office. Send your inquiries and orders to us by wire at our expense. This will save you time."

As the result of three successive conferences between D. B. Richardson and William L. R. Lynd, treasurer and superintendent respectively of the Richardson & Boynton Co., Dover, N. J., and representatives of the laborers' unions, a settlement of the strike at the company's plant was effected. The strikers resumed work Wednesday, May 15, at an increase of 5 per cent in their pay. The plant, which employs nearly 700 men, had been shut down for nearly a month, as the result of demands on the part of the unskilled help of $2.00 a day for a nine-hour day, instead of $1.80 for 10 hours, certain improvements in ventilating and heating and the discharge of a foreman.

The Cincinnati Commercial-Tribune says: "A building permit was taken out May 4 by the Monitor Stove and Range Company for the erection of a 2-story brick building for manufacturing purposes in Gest street, between Berlin street and the C., H. & D. railway, to cost $22,000. Also a permit for another building to cost $5,000. The Monitor Stove and Range Company was incorporated recently and absorbed the well-known firm of William Resor & Co. The factory of the latter firm adjoins the tract upon which the new buildings will be erected. Other structures will follow in the near future, as a large plot of ground is now held, giving plenty of room. Harry Hake has charge of the plans. The officers of the company are: W. H. Schmidlapp, president; E. W. Hake, vice-president and general manager; I. B. Resor, secretary and treasurer, and J. W. Depuy, superintendent."

A STOVE FOUNDRY FIRE.

The plant of the Littlefield Stove Company at Pearl, Pleasant and Tivoli streets, Albany, New York, was attacked by fire Wednesday evening, May 15, and the section west of the mounting rooms was destroyed, with a loss between $60,000 and $70,000. The build-

ings destroyed were moulding shops Nos 1, 2, 3 and 4 and the cupola. The mounting rooms, plating rooms, storerooms, power house, pattern vault, office building, tin shop and pattern shop were saved. Orders for immediate delivery will be filled from the stock on hand.

President Henry C. Littlefield of the company attributed the origin of the fire to sparks from the chimney of an adjoining concern.

GARLAND STOVES AS SOAP PREMIUMS.

Supports the Larkin Idea.

To THE AMERICAN ARTISAN:

I have been reading your article about the Larkin soap people giving away stoves as a premium, and have come to the conclusion that your Mr. Arnold must have a grouch. What business is it of his if the Larkin people or the Garland people give away their stoves? This is a free country and any one can do as they please with their own property, and your Mr. Arnold would be up in arms if any one interfered with his rights as an American citizen.

I have been selling Garland stoves for years and am perfectly satisfied with the way they are treating me, and have not as yet found that the Larkin people have given any stoves to any of my customers.

I like to read Mr. Arnold's articles, if he wasn't so one-sided.

RETAILER.

May 11, 1907.

Makes Use of the Larkin Catalogue.

To THE AMERICAN ARTISAN:

I have read with a great deal of pleasure your roast of the Garland people for being so injudicious as to allow their stoves to be given away as premiums in territory where they have regular stove dealers or hardware stores handling their line. Am surprised you did not get on to this sooner. Some of us boys have been wise to this for several months, and we are carrying one of the Larkin catalogues, and I made three customers last month, who formerly carried trade-mark stoves, whom I never could budge before till I showed them this Larkin catalogue demonstrating the Garland stoves.

I have been against the trade-mark line for a long time, and a great many dealers are waking up to the fact that it is poor policy for them to use their time and brains and money making a reputation for a trade-mark line of stoves and then have the manufacturer take it away from him or give the stoves away as premiums for soap.

How can you expect to sell stove dealers and have your stoves given away free for nothing just to buy a little soap and a few things for the house?

Yours very truly,

Minneapolis, May 10, 1907. G. F. P.

Makers of Garland Stoves.

To THE AMERICAN ARTISAN:

We note in the last issue of your paper an article relating to the Larkin Company of Buffalo giving Garland stoves and ranges as premiums.

Would you kindly advise us whether these are the stoves manufactured by the Michigan Stove Company of Detroit and Chicago, and oblige?

Yours respectfully,

HARDER & FEUERBACH,

Members of Iowa Retail Hardware Association.

Stanwood, Iowa, May 11, 1907.

Ans.—Yes.

THE BALTZLY STOVE TRUCK.

An interesting and useful specialty made by the Arcade Manufacturing Company, of Freeport, Illinois, enables the hardware dealer to handle stoves, hot or cold, big or little, so easily that as the makers say, "you will hate to take the money." The Baltzly Stove Truck is the device in question and its usefulness in a hardware store will be apparent at a glance. It is made of steel and designed to last a lifetime, while by means of it all kinds of stoves can be moved with the utmost ease. The Baltzly is not an expensive article and the convenience which it secures in handling stock far outweighs its price.

The department of domestic economy of the Arcade Mfg. Company offers to housekeepers through the hardware dealer many an article of modern convenience unknown to the past generation and undreamed of in their philosophy. The catalogue of the company describes and illustrates some 400 "good things" each of which gives a suggestion to the alert hardware man.

The Arcade Mfg. Co. invite dealers to drop them a postal asking for the catalogue and say they will send it with prices that will be found interesting. When writing kindly mention THE AMERICAN ARTISAN.

WILLARD STEEL RANGES.

For steel ranges that are sold cheap but are not cheap ranges, dealers are advised by Wm. G. Willard of St. Louis, Missouri, that they can secure from him a line of goods that will enable them to meet any catalogue-house competition and give satisfaction to the purchaser.

Willard's Steel Ranges, the maker says, "are good, honest quality, durable and economical, made well, baking well, cooking well and selling well, with good profit in them for the dealer." They are extensively advertised to the public, so that people know them and Wm. G. Willard's offer to dealers will undoubtedly interest many in the trade.

The Willard ranges are described as made of the highest grade of cold rolled, malleable steel plate. The dealer's own name plate is placed without extra charge on orders of 10 or more. To secure the proposition to dealers address Wm. G. Willard, Room 28, Willard Building, 316 Chestnut street, St. Louis, Missouri, and when writing, kindly mention THE AMERICAN ARTISAN.

"NEW PROCESS" VISIBLE GAS RANGES.

A handsome illustrated pamphlet calls attention to the "New Process" Visible Gas Ranges, manufactured by the Standard Lighting Company, Div. American Stove Company, Cleveland, Ohio. These ranges have been planned and arranged, the makers state, with a view to securing the most convenient possible combination to meet every requirement of the modern kitchen.

Particular attention is called by the company to their No. 18-83 pattern stove, which is shown in the new pamphlet with canopy attachment in six different kitchen scenes, representing the wide range of uses possible in operating this stove. A glance at the full-page photographic illustrations will show the reader all the conveniences and up-to-date arrangements of this range, with its convenient broiler and elevated oven at the left-hand side, both operated by the broiler burner so that it is possible to bake and broil at the same time without extra expense. The lower oven on the range is ample in size to accommodate the

largest roasts, being 18½x18½x12 inches. The burner used in this oven is unique, as it extends across the front and sides of the oven compartment, being U-shaped. By this arrangement, it is claimed, a more perfect distribution of heat in the oven is secured, hence superior baking results.

A powerful argument for the use of gas ranges is contained in the pamphlet, besides a most complete detailed description of the "New Process" Visible Range. The pamphlet is entitled, "Save Gas by the 'New Process' Visible," and will be sent by the Standard Lighting Company on request. When writing, kindly mention THE AMERICAN ARTISAN.

THE IMPROVED KING BEE AIR BLAST.

Under the title, "I Am the King Bee of Them All," the Culter & Proctor Stove Company, of Peoria, Illinois, issue an attractive booklet calling attention to the latest Improved King Bee Air Blast, which they claim to be the cleanest, most economical, most perfect operating, and best all-around stove of its class made. The booklet is filled with testimonials from dealers as to the selling quality of the King Bee, and the tenor of these testimonials is represented by the statement of one firm that "each King Bee stove sold sells another."

The Improved King Bee is mounted with the Culter & Proctor anti-buckling ring, which prevents the drum from warping. It has a broad deflecting ring, which keeps the base as hot as any hard coal base burner, is equipped with the company's patent perforated puff preventer to prevent explosions, and burns soft coal, hard coal, coke, slack, wood, cobs, or any kind of fuel.

Dealers are invited to learn the merits of the King Bee Air Blast from the booklet referred to and also to write for prices and territory. When addressing the Culter & Proctor Stove Company, kindly mention THE AMERICAN ARTISAN.

ELECTROPLATING OUTFITS AND SUPPLIES.

Zucker & Levett & Loeb Company, manufacturers, exporters and importers of nickel and electroplaters' supplies, polishing materials and dynamos, have issued the twelfth edition of their catalogue under the title, "Electroplating and Polishing Materials." In this 220-page book there will be found a very complete list of polishing and plating machinery and supplies, each article being described and illustrated as fully as possible and instructions being given for the use of the same. All the goods manufactured by the company are guaranteed to be just as represented, their aim being to satisfy all customers.

To those who contemplate putting in a plating and polishing outfit, Zucker & Levett & Loeb Company will furnish complete information as to the character of the machinery and supplies required. If the nature of the work to be done and the number and size of the articles to be plated at a time, are clearly indicated, the company will give all the information needed to establish the plant in the best and most economical manner. They make a specialty of low voltage dynamos and direct connected sets in all sizes, and manufacture everything required for polishing and plating. Their catalogue will be sent on request. When writing for it, address Zucker & Levett & Loeb Company, 526-530 W. 25th street, New York, and kindly mention THE AMERICAN ARTISAN.

STEEL BOX CARS.

With their own all-steel passenger and postal cars now on the rails, the Omaha shops of the Union Pacific have turned out two sample all-steel box cars from designs of the motive power department. This is another step toward the approaching era of steel rolling stock of all kinds. It leaves to be produced only the all-steel dining car, which calls for no new structural features such as are embodied in other types.

With greater cubic capacity, the all-steel box car weighs only 37,800 pounds, or two tons less than the standard wooden car. Besides the element of greater safety and protection to goods in transit, the steel car has the advantage of requiring less repair than the wooden car, will be out of service less frequently, and will, therefore, give more, as well as better, service to the carrier and to shippers.

A single 15-inch "I" beam forms the center sill of the car, below the double steel flooring. The sides and ends are of thin sheet steel, riveted every two feet to angle carlins. Each door is a single sheet of steel, reinforced like the sides and ends of the car, by diagonal bracing.

The only difference in dimensions between the steel and wooden Union Pacific box car is that the steel car is 4½ inches wider and 2 inches lower. The length, 40 feet, is the same, but the steel car has a greater capacity by 50 cubic feet.—The American Metal Market.

A STUDY IN GRAPHITE.

A pamphlet recently published by the Joseph Dixon Crucible Company on the subject of graphite lubrication describes in detail a series of tests of graphite made by Professor W. F. M. Goss of Purdue University. The work is published under the title, "A Study in Graphite." The tests were conducted in a spirit of scientific research and Professor Goss's description of them, with his own comments, is accompanied by illustrations of the testing machine showing the conditions of the bearings and journal by photographs taken at different stages of the tests.

Because of the high character of the matter and the expense attached to the conduct and publication of these tests, it was decided to make a nominal charge of twenty-five cents a copy for "A Study in Graphite." A limited number of copies, however, will be distributed free of charge to those interested in the science of graphite lubrication. Address the Joseph Dixon Crucible Company, Jersey City, New Jersey, and when writing kindly mention THE AMERICAN ARTISAN.

After all, getting replies to an advertisement is not half the battle. It is the follow-up that makes the customers out of the inquirers.—Printers' Ink.

Get right down to business if you intend to accomplish anything. Flirting with work doesn't count worth a cent.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 42 to 47 inclusive.

Dooley Bros. have bought the hardware business of J. C. Sample, Frankfort, Kan.

King & Ransom have succeeded to the hardware business of C. C. King, at Colo, Iowa.

J. F. Austin & Son, of Georgetown, Ill., have sold their hardware business to C. M. Goff.

W. H. Tiffany has bought the hardware business of A. N. Tiffany & Co., at Antioch, Illinois.

Montgomery Bros. have succeeded to the hardware business of W. S. Price at Oak, Nebraska.

The hardware firm of Wise & Varns, Middleburg, Ind., celebrated its 20th anniversary May 1.

The firm of Chamberlain & Kirkpatrick, hardware dealers at Lisbon, Iowa, has been dissolved.

The Starr Hardware Company of Jackson, Mich., has increased its capital from $15,000 to $25,000.

The Lewis & Holland Hardware Company has succeeded W. H. Lewis, hardware, at Atchison, Kan.

Axtell & Son Hardware Company of La Cygne, Kansas, has succeeded the Root Hardware Company.

The Bristol Brass Co. of Bristol, Connecticut, is to build a one-story addition to its rolling mill, 75x75 feet.

Morrissey & Ineichen of Shenandoah, Iowa, have bought the hardware and vehicle business of W. H. Sievers.

The Leonard Hardware Co. of Springfield, Mo., has purchased the stock of the Weaver Hardware Co. of that city.

The Franklin County Hardware Company of Ottawa, Kan., has bought the hardware business of John R. McGuire.

Curtis Barge has bought out his partner's interest in the business of Klein & Barge, dealers in stoves at Bicknell, Ind.

The furniture store of S. J. Bedwell at Pleasantville, Indiana, was destroyed by fire April 28. Incendiarism was suspected.

The Emerson Paint Company of St. Louis, Missouri, has filed articles of incorporation with a capital stock of $175,000.

The Hayden-Corbett Chain Co. of Columbus, Ohio, will add to its capacity with a new link shop, now nearing completion.

H. A. Bjaro & Sons' hardware store at Kensett, Iowa, was burned May 3, with loss said to amount to $8,000, partly insured.

The Newark Hardware Company has been organized to take over the W. L. Whitecamp hardware store in Newark, Ohio.

Edward Woehler is closing out his hardware business at Zearing, Iowa, and will move to Minnesota to engage in the same business.

The Pittsburgh Screw & Bolt Co., Pittsburgh, is adding a three-story brick and steel building, 100x100 feet, to its plant for the manufacture of nuts, bolts, screws, washers and rivets. It will be completed during the coming summer.

The One-Minute washer is now being manufactured in Canada by White, Ehrhardt & Company of Toronto.

The Curtis Screw Company of Buffalo, New York, has secured a new three-story factory building at Gull Street and the Belt Line tracks.

C. E. Amerill and W. E. Southwood have acquired the business of the Enterprise Hardware & Implement Company of Colfax, Wash.

The Central Hardware Company, 311 Chillicothe street, Portsmouth, Ohio, have opened another store at 292 East Gallia avenue, Portsmouth.

The Weakley-Clingman Hardware Company of Houston, Texas, has filed an amendment to increase its capital stock from $25,000 to $50,000.

The Otto Hardware Company, Wapello, Iowa, has sold out to Fred H. Hesse and Lloyd Patterson, under the firm name of Hesse & Patterson.

The new rolling mill of the Penn Shovel Co., Warren, Ohio, has been completed and the company has begun to roll steel for the manufacture of shovels.

The Grand Rapids Hardware Company of Grand Rapids, Mich., is considering plans for a new factory on Tenth and Turner streets, to cost about $30,000.

Arne J. Higdem of Bagley, Minn., has bought the interest of his partners in the hardware business which has been conducted under the name of Higdem, Heltna & Rugge.

The Dixie Hardware & Furniture Co., Limited, has been incorporated at Gibsland, Louisiana, with a capital of $30,000. The company will build a large two-story brick building.

The Milwaukee Hardware Mfg. Co. has been incorporated at Milwaukee, Wis., capital stock $25,000. Incorporators: Leonard W. Ashley, Emil Wangerin and William C. Loovsen.

The Bicknell Hardware company of Janesville, Wis., has purchased the Taylor & Lowell factory building and will branch out into manufacturing, according to the Janesville Gazette.

H. W. Cooper, of Moline, Illinois, manufacturer of saddlery hardware, will incorporate under the name of H. W. Cooper Saddlery Hardware Manufacturing Co., with a capital stock of $200,000.

F. B. Zieg will establish a factory for the manufacture of ice cream freezers and hardware specialties in Fredericktown, Ohio. The plant will consist of two buildings, 50x160 feet and 24x80 feet.

The National Hardware Mfg. Company of Port Clinton, Ohio, have absorbed the Half-Moon Skimmer Company of Cleveland and will make skimmers under the Cleveland company's patents.

The Crawford-Goff Hardware Co. of Graham, Missouri, has been incorporated with a capital stock of $10,000. The incorporators are J. H. Crawford, C. E. Goff, Louis D. Bose and W. E. Crawford.

The Patent Sad Iron Manufacturing Co. has been incorporated at East Orange, N. J., to manufacture a patented sad iron known as the Simplex, also wood and metal novelties, etc.; capital, $100,000. Incorpo-

rators: Charles O. Geyer, Frank S. Ferguson, Augustus W. Condit, East Orange, N. J.

Hoover Bros. of St. Marys, Kan., have bought the business of the Coughlin Hardware Company.

G. W. Wingate of Liberty, Kan., has succeeded to the hardware business of Wingate & McGugin.

The Ironton Tool Handle Mfg. Co. has been incorporated at Ironton, Ohio, with a capital of $15,000. Incorporators: F. E. Diederick, F. J. Ginn, F. McConnell, T. J. Gilbert and D. C. Davies.

A company has been organized in Baltimore, Maryland, with a capital stock of $300,000, to manufacture a substitute for turpentine. It is to be called the Southern Substitute Turpentine Company.

The Duce Manufacturing Co. of Kiel, Wisconsin, manufacturer of brass and steel screws and springs, has increased its capital stock from $10,000 to $25,000, and will move its plant to Chilton, Wisconsin.

J. C. Stevenson has bought the interest of J. C. Wachob in the firm of Wachob & McLean, hardware dealers, Tabor, Iowa, and the business is now conducted under the firm name of Stevenson & McLean.

The Lamino Metal Co., Cleveland, Ohio, has been incorporated, capital $20,000, to manufacture metal goods. The incorporators are George A. Gaston, Robert J. Good, M. L. Thomsen, V. E. Davis and R. M. Torrence.

Rabbideau, Turriff & Co., Depere, Wis., have succeeded the Rabbideau-Delwich Company, the interest of George Delwich having been acquired by Al. Turriff. The new firm will largely increase its stock of hardware, etc.

Sargent & Company of New Haven, Connecticut, New York, Philadelphia, Boston and Chicago, have withdrawn all prices on "Diamond" sash fasteners and "Ruby" sash fasteners. Revised prices will be quoted on application.

The Campbell Lock Co. has been organized at Plainfield, N. J., to manufacture locks, bolts, tools, etc.; capital, $100,000. Incorporators: John S. Campbell, William S. Campbell, Plainfield, N. J.; Joseph D. Baucus, New York.

The C. H. Blanding Hardware Co., of Harvey, North Dakota, recently incorporated with a capital stock of $20,000, has taken over the business of Blanding & Fischer. The incorporators are C. H. Blanding, M. L. Blanding and H. O. Hansen.

Seymour Smith & Sons, hardware manufacturers at Oakville, Connecticut, are reported to have been experimenting in the furnaces at their factory with a new fuel mixture of coal, oxalic acid, salt and water. The mixture is said to have failed to give satisfactory results.

It is announced that San Antonio, Texas, is to have another wholesale and retail hardware house, to be known as the Praeger Hardware Company. The new corporation will have a capital stock of $50,000 and will succeed Mr. E. Praeger, 322-324 East Commerce street, who has been in the hardware business for many years. Mr. Praeger will manage the new concern. At the directors' meeting the following were elected officers of the company: E. Praeger, president and general manager; E. H. Dittmar, secretary and treasurer; F. L. Toepperwein, assistant manager.

The Bourland & Moore Hardware Company, newly organized, has opened a store at 518 Main street, Evansville, Ind., where it will carry a complete line of hardware. The firm is composed of R. E. Moore, H. D. Bourland and F. T. Wallace.

The Fostoria, Ohio, Board of Trade has accepted the proposition of William Rockhoff of Manitowoc, Wisconsin, for the location of a factory in Fostoria for the manufacture of aluminum specialties. It is proposed to organize a company with a capital of $25,000.

Samuel S. Moen, who has just opened a hardware store at Culbertson, Montana, will run a repair and tin shop in connection with the store. He has had 22 years' experience in the hardware business in North Dakota, 13 years at Devil's Lake and 9 years at Church's Ferry.

A controlling interest in the Bridgeport Wire Goods Co. of Bridgeport, Connecticut, has been acquired by Thomas F. Cooney of Bridgeport and George S. Snow of Yonkers, New York. The capital stock has been increased and the plant has been removed to larger quarters in Bridgeport.

The Norfolk Wire Cloth & Wire Fence Mfg. Company has been organized at Norfolk, Va., with a capital of $300,000. The company will build a plant to cost $125,000 for the production of wire fence and wire cloth. The officers are: Paul R. Howard, president; J. P. Andre Mottu, secretary and treasurer.

The Seneca Chain Company is to remove its plants at Kent and Zanesville, Ohio, to Mansfield in the same state, where the plants will be combined. The Commercial Club of Mansfield engineered the deal and will welcome the company, which employs 300 men with an output of about 250 tons of chain a month.

The Treasury Department has decided that on the exportation of firearms manufactured by the J. Stevens Arms and Tool Company, of Chicopee Falls, Massachusetts, with the use of imported gun barrels, a drawback will be allowed equal in amount to the duty paid on the gun barrels so used, less the legal deduction of 1 per cent.

Building operations during March in 55 leading cities throughout the country show a slight decline in value when compared with corresponding figures for 1906, the respective figures being $54,222,677 and $56,072,037. Chicago, Cleveland, and St. Louis show a growth in building operations of 33, 51, and 53 per cent, respectively, while Greater New York, Philadelphia, and Pittsburgh show a decrease of 23, 31, and 5 per cent, respectively.

Christopherson Bros., of Manistee, Michigan, are about to open in that city a new hardware store under the name of The People's Hardware Company. The brothers, Nicoli and James Christopherson, are the sons of the late Emil Christopherson, who was identified with the hardware business in Manistee for many years, and both were virtually brought up in the hardware trade. Nicoli Christopherson has been for seven years a traveling salesman for A. J. Lindemann & Hoverson Company of Milwaukee, while his brother

James has been engaged in the retail trade. The new store will open about June 1 in the Baur Block, Manistee.

The Salt Lake Hardware Company of Salt Lake, Utah, has filed amendment to its articles of incorporation adopted at a meeting of the stockholders of the company held April 16. The amendment increases the capital stock to $1,500,000 in 15,000 shares at $100 each, of which 11,000 shares are common and 4,000 preferred stock.

The Pease Hardware Company of Superior, Wisconsin, will equip an amateur baseball team to represent the city of Superior on the diamond this season. Manager Wm. H. Hammond of the sporting department of the Pease Hardware Company is secretary of the club and will arrange playing dates with northern Wisconsin and Minnesota towns.

The Supplee Hardware Company of Philadelphia have received a communication from their antipodean agents, Messrs. Mason, Struthers & Company, Christchurch, New Zealand, enclosing a letter received from the Secretary of the New Zealand Exposition, stating that the Supplee Company's lawn mowers have given excellent satisfaction in regular work on the exposition grounds.

On account of the great demand and advanced price of wire netting in Victoria, the government of that Australian province is going to establish a factory at Pentridge, with prison labor, for the manufacture of this article. Wire netting for fencing, it is claimed, can be made for $128 per mile, whereas it now sells in Victoria for $195 per mile. The plant will turn out 860 miles of wire a year.

The W. P. Lewis Hardware Company, Inc., of Roswell, New Mexico, has recently completed a large and well-equipped retail hardware establishment, including a retail salesroom 75x198 feet; cutting, threading and fitting room, 40x74 feet; tin and plumbing shop, 50x 74 feet; pipe and casing room, 12x200 feet, and warehouse, 50x200 feet, double decked throughout, with 20,000 feet of storage space.

Application has been made for an amendment to the charter of the Benedict-Warren-Davidson Company of Memphis, Tennessee, increasing the capital stock from $250,000 to $750,000. The petition was signed by N. Benedict, G. S. Davidson, R. L. Davidson, R. D. Warren, A. G. McLennon, N. Smith and J. H. McClure. The company has been doing a wholesale hardware business for several years past.

The London Commercial Intelligence states that outside of Canada and the United Kingdom, there are no steel works of considerable size in the British Empire. Big works are proposed for India, South Africa and New Zealand. In Australia works are being constructed in New South Wales, 104 miles from Sydney, where unlimited quantities of iron, coal, etc., exist. The capital of the new company is placed at $2,000,000.

The Nelson & Morrison Mfg. Co., formerly of Boulder, Colorado, have removed their headquarters to 908-914 South Washington Street, Peoria, Illinois. The firm manufacture snap hose couplings and the growth of its business made it imperative to remove to a more convenient point of distribution. The snaps having been manufactured at Peoria, the firm removed to that city. They report plenty of orders for snap couplings on hand.

The Osmonson Square & Tool Company, recently incorporated at Crookston, Minnesota, to manufacture the Osmonson adjustable square, held a special meeting of its stockholders May 6 to make plans for the erection of a factory in Crookston so as to greatly increase its output. It is reported that orders are being received so thick and fast that they necessitate the immediate erection of a factory. The directors of the factory are all northern Minnesota men.

The Holley-Mason Hardware Company of Spokane, Washington, has recently built and occupied a new reinforced concrete building six stories, 100x150 feet, with an annex two stories high, 100x140 feet, giving the company a total floor space of nearly 200,000 square feet. The company was established in 1885, the firm name formerly being Holley, Mason, March & Company, which was changed to the Holley-Mason Hardware Company a few months ago.

The Duluth, Minnesota, Herald, in a recent article on the Marshall-Wells Company, hardware jobbers, of that city, states that the home establishment of the company contains nine acres of floor space, and the branches in Portland, Oregon, and Winnipeg, eight acres more; that the company employs 700 people, including 100 traveling salesmen, and 200 in the branch houses. There are 250 persons employed at clerical work in the Duluth office and forty-five in the publicity department, which has its own print shop.

Mr. W. D. Simmons, president of the Simmons Hardware Company, of St. Louis, Missouri, is quoted by the St. Louis Star as follows: "We find no tendency on the part of trade to restrict purchases of goods, and 1907 should be the best year this company has ever known. Whatever talk of retrenchment has been heard comes from the East and has a significantly financial flavor. Personally, I think that buyers are very cautious and are awaiting the outcome of the crops before committing themselves to any degree."

The Perkins Hardware & Roofing company of Youngstown, Ohio, has been organized, the following being the directors: James R. Perkins, George R. Perkins, Joseph R. Perkins, John R. Perkins and Jerry R. Woolley. The directors elected the following officers: John R. Perkins, president and general manager of the hardware department; George R. Perkins, vice president; Joseph R. Perkins, secretary and treasurer and general manager of the roofing department. The new concern is in the Gluck block in West Federal street at present, but will have another location before a great while in the West End of Youngstown.

United States Consul-General Henry Bordewich writes from Norway that although there are several paint works in Norway paint is imported to some extent, and American paint has been sold in that market with varied success. According to the official statistics, Norway imported during the year 1905, 156,220 kilos (kilo equals 2 1-5 pounds) of ground paint in oil, valued at $14,258, of which 3,420 kilos appear to have come from the United States. The import

duty on paints in oil is 2.1 cents per kilo, and a trifle less on dry paints. Of firms with whom American paint manufacturers may correspond with the view of opening up trade in Norway, six are named by the consul-general, and the addresses are placed on file at the Bureau of Manufactures, Washington, D. C.

SOUTHERN HARDWARE JOBBERS' PROGRAM

The program for the annual convention of the Southern Hardware Jobbers' Association at Richmond, Virginia, June 11 to 14, contains many items of interest to the trade and although the final arrangements have not yet been completed it can be fairly well outlined at the present time. There will be several joint sessions with the American Hardware Manufacturers' Association, which will meet at Richmond the same week. There will be a banquet feature on Thursday night, June 13, the details of which have not yet been completed.

Secretary W. W. Webber of Fort Smith, Arkansas, outlines the program for the convention as follows:

TUESDAY A. M., JUNE 11, 10 O'CLOCK—JOINT MEETING WITH THE AMERICAN HARDWARE MANUFACTURERS' ASSOCIATION.

Meeting called to order by President Dunlop.
Invocation by Rev. F. T. McFaden.
Chorus, "America."
Address of Welcome by President Dunlop.
Welcome to Richmond by Hon. Carlton McCarthy, Mayor.
Welcome by Richmond Manufacturers by Mr. Joseph Bryan of the Richmond Locomotive Works.

TUESDAY P. M., 2:30 O'CLOCK—EXECUTIVE—FOR JOBBERS ONLY.

Reading of minutes of 1906 Convention.
Annual Reports of Standing Committees.
Report of Special Committees.
Report of Secretary-Treasurer.
Appointment of Special Committees.
Communications.
Miscellaneous Business.
Discussion of Executive Committee's Report.
Opening of Question Box.

WEDNESDAY A. M., 10 O'CLOCK—EXECUTIVE—FOR JOBBERS ONLY.

Address by W. W. Webber of Ft. Smith, Ark., subject, "Benefits of Membership in the Southern Hardware Jobbers' Association, and a Member's Duty to It."

Address by Ben J. Schuster of Selma, Ala., subject, "Why a Jobber Should Sell at Net Prices Instead of Discounts"

Address by Lee Richardson of Vicksburg, Miss., subject, "A Jobber Should Compute His Profits on His Selling Price Rather Than His Cost."

Discussion of Executive Committee's report continued.

WEDNESDAY P. M., 2:30 O'CLOCK—JOINT MEETING.

Meeting called to order by Chas. W. Asbury, President American Hardware Manufacturers' Association.

Address by Robert Garland of Garland Nut & Rivet Co., Pittsburg, Pa., subject, "Should Not the Hardware Jobbers Properly Anticipate Their Requirements?"

General Discussion.

Address by J. C. Sproul of Anniston, Ala., subject, "Importance of the Customary Cash Discount to the Jobber."

General Discussion.

Address by Mr. G. H. Jantz of the American Wringer Co., New York City, subject, "What Constitutes a Hardware Jobber?"

General Discussion.

Address by T. G. Ewing of Gadsden, Ala., subject, "The Disposition of Manufacturers to Encourage Jobbing at Places Not Recognized as Jobbing Centers."

General Discussion.

THURSDAY A. M., 10 O'CLOCK—EXECUTIVE—FOR JOBBERS ONLY.

Address by W. L. Sanford of Sherman, Texas, subject, "The Necessity for Increasing Profits and How it Can Be Done"

Address by R. D. Warren of Memphis, Tenn., subject, "The Essential Elements of a Credit Man."

Miscellaneous Business.
Report of special committees appointed at the session.
Election of officers.

THURSDAY P. M., 2:30 O'CLOCK—JOINT MEETING.

Address by Harry Wise of The Tradesman, Chattanooga, Tenn., subject, "The Future Outlook of the South."

Communications.
Unfinished business.
Installation of officers.

National Hardware Association.

The executive committee of the National Hardware Association (jobbers) will meet in Philadelphia during the coming week. They will be tendered a reception by the Philadelphia jobbers on Monday evening and on Tuesday will be entertained with a shad dinner on the Delaware. The proceedings of their business session will include the consideration of several resignations from membership which have been sent in by a number of prominent concerns.

OBITUARY.

Andrew B. Hendryx.

Andrew B. Hendryx, president of a manufacturing company that bears his name, and well known the country over as a maker of bird cages, died at his home in New Haven, Conn., May 10. He was seventy-four years old and had been ill three days with pneumonia.

S. W. Conant.

S. W. Conant died at Pana, Ill., May 8, as the result of a fall received in his hardware store on February 28. He was a Knight Templar, secretary of the Royal Arch Masons, a Woodman and a member of the Lotus club. He was 51 years of age.

Samuel B. Robertson.

Samuel B. Robertson, a prominent citizen of Cherry Creek, N. Y., died at his home in that town last night, 75 years old. He was for many years engaged in the hardware business in the village of Cherry Creek.

Alois Laitner.

Alois Laitner, one of the best known brush manufacturers in Michigan, died May 8 at the family home, 35 Blaine avenue, Detroit, after a lingering illness, with a complication of diseases. Born 63 years ago in Germany, he went to Detroit when 11 years old, and 23 years ago established what is now the firm of A. Laitner & Son, at 87 Gratiot avenue.

Louis B. Marvin.

Louis B. Marvin of Oregon, Wisconsin, died April 27 at his residence in that town of blood poisoning after a few days' illness. Mr. Marvin was in business at Oregon with his father, H. H. Marvin, under the firm name of the Marvin Hardware Company. He was only 33 years of age at the time of his death and all accounts agree that he was the most popular business man in Oregon. He leaves a widow and one son, aged seven.

AN INTERESTING WINDOW DISPLAY.

An interesting window display made by Mr. W. H. Regner of York, Nebraska, which was highly commended by the judges in our recent window display competition, is reproduced herewith.

The photograph of this display was submitted under the name "A House in the Rough" by "The Tinker," which was the name chosen by Mr. Regner for the occasion. Mr. Regner is a tinner in the employ of Hartman & Bullock, dealers in hardware, etc., at York, Nebraska, and sent in the following description of the display:

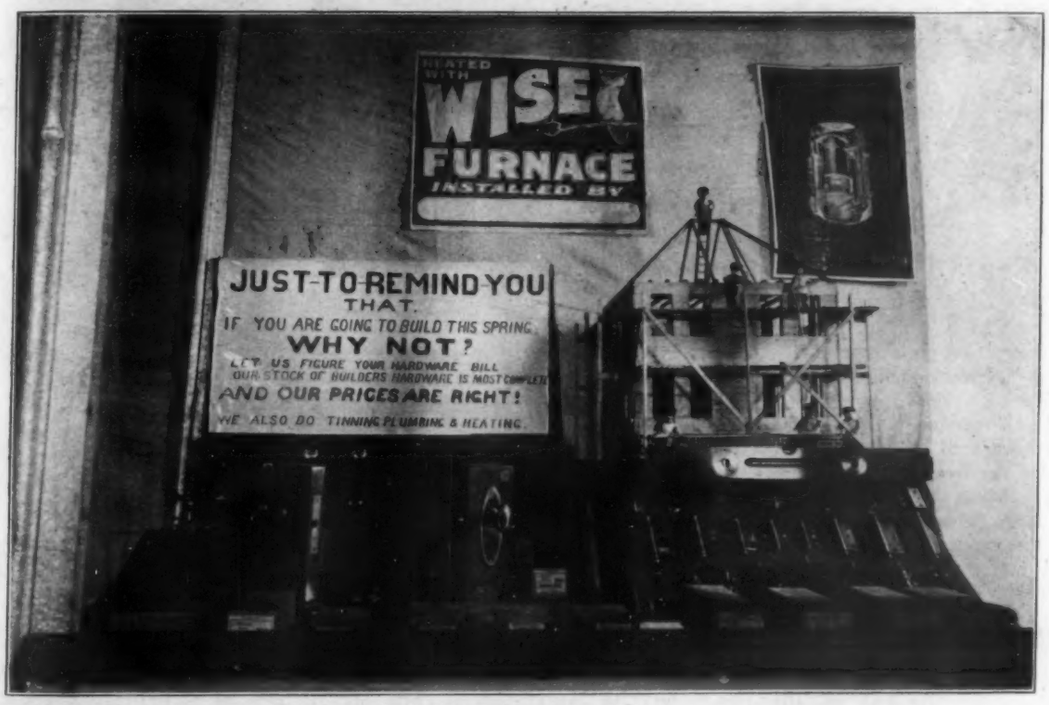
"The house in the photo is only 20x24 inches and 18 inches high, made on the scale of one inch to the foot. The workmen are dolls six inches high dressed up to represent carpenters at work. The surrounding articles are, as you can see, builders' hardware samples.

"Special attention may be called to the sign which we think is just as appropriate to the season as the house and surroundings."

Criticism by an Expert.

Mr. Regner's display has been criticized by an expert window trimmer for THE AMERICAN ARTISAN as follows:

"The thought and design of this window, 'The House in the Rough,' is exceptionally strong, and I have no doubt but that it has caused a goodly number to give this firm an opportunity to make bids on prospective buildings in that part of Nebraska. The probability is that the name of the firm is in a conspicuous position on the outside of the building, but we think that the firm name should be woven into every window display which is made. Hartman & Bullock of York, Neb., are interested in people remembering that Hartman & Bullock are there to serve them. The Wise Furnace Company of Akron, Ohio, have furnished them with a very handsome sign, leaving a place for their name, yet the window trimmer did not take the hint to fill this in. It is not only possible, but probable that this window aroused the interest of people, but the next month when the prospective buyer came to town to secure bids, he did not remember specifically that it was Hartman & Bullock of whom he wanted to secure bids or John Jones around the corner."



Highly Commended by the Judges in THE AMERICAN ARTISAN Window Display Competition—Submitted by W. H. Regner, with Hartman & Bullock, York, Nebraska.

THE DRUG COMBINE DISSOLVED.

In the United States District Court at Indianapolis, May 8, Judge Anderson entered a decree perpetually enjoining the members of the combination commonly called the drug trust, from continuing its operations. The defendants were 92 in number, being members, officers, directors, agents and attorneys of the National Association of Retail Druggists and the National Wholesale Druggists' Association, and all were perpetually enjoined from combining and conspiring to restrain trade in drugs, from fixing prices by agreements, and from blacklisting retailers who cut prices, or from refusing to sell to any retailer on equal terms. All contracts and agreements covered by the charges were declared void, and all publication of blacklists was forbidden.

All of the ninety-two defendants except W. D. Freeman agreed to the decree. Freeman demanded a trial, whereupon the case as against him was dismissed and he will be taken care of in another court.

THE WIZARD INVERTED GAS LAMP.

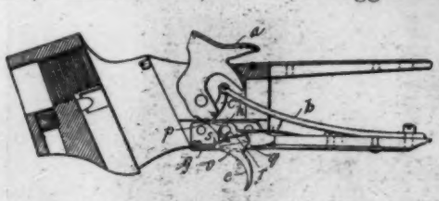
As brilliant a light as that produced by electricity, with nine-tenths of the cost of electricity saved, is claimed to be produced by the Wizard Inverted Gas

Lamp, manufactured by the Manhattan Screw & Stamping Company, 167 West End avenue, New York. The attention of the trade is directed by the makers to the merits of this lamp, which is said to be absolutely of high grade, selling easily and making a rich window display.

The Wizard lamps are made for the home, office, store, school, or public building and attractive show cards are furnished to dealers to help their sale. Hardware dealers are invited to write to the Manhattan Screw & Stamping Company for special prices on the Wizard lamp, and when writing kindly mention THE AMERICAN ARTISAN.

SET TRIGGER FOR FIREARMS.

A patent, No. 85,942, has been granted to James N. Fisher of Springfield, Massachusetts, and by him assigned to J. Stevens Arms & Tool Company of Chicopee Falls, Massachusetts, for a set trigger for fire-



arms of which a drawing is given herewith. The claim allowed is as follows:

The combination with the hammer of a fire-arm, of a sear and a trigger having a common axis, the trigger having a swinging movement on its axis relative to the sear and normally bearing against the rear end of the latter; a spring secured to the frame, the free end of which is rounded and extends toward the trigger, there being a slot in the trigger to receive the free end of the spring, and a projection extending into the slot against which the rounded end of the spring bears, whereby when the trigger is pressed forward a part thereon is separated from the sear and constitutes a hammer to release the sear upon the release of the trigger, together with means to limit the forward swing of the trigger.

AN "ENTERPRISE" PEACE OFFERING.

Under the above alluring title the Enterprise Mfg. Company of Pennsylvania issue a clever booklet in the interests of their Enterprise food chopper. They say, "The woman who prepares a savory, delicious, strengthening dish from left-over food, a peace offering, makes her husband doubly rejoice, once when he eats, again when he finds the food bills smaller—this being easily accomplished with an Enterprise food chopper."

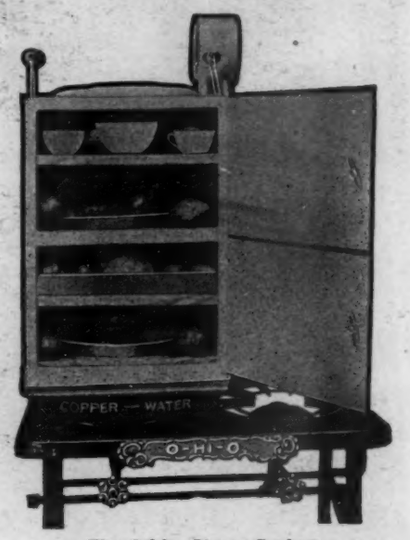
The booklet quotes a witty Chicago doctor as asking the question, "How can you expect a man to have in his heart 'the peace that passeth all understanding' when there is going on in his stomach a war that defies all description?" Nothing producing peace in the family like a good, square meal, housewives are invited to calm the ruffled spirit of grumbling man with dishes quickly prepared with the Enterprise food chopper.

Four knives go with each chopper, fine, medium and coarse, with a nut butter cutter. The Enterprise chopper is made in three sizes, from four to eight pounds in weight, and the retail prices are extremely low, making them a popular line for dealers to handle. For catalogue and illustrated circulars, prices, etc., address the Enterprise Mfg. Company of Pennsylvania, Philadelphia, and when writing kindly mention THE AMERICAN ARTISAN.

THE O-HI-O STEAM COOKER.

The O-hi-o steam cooker, manufactured by the O-hi-o Cooker Company, 531 Jefferson avenue, Toledo, Ohio, is described as a great money maker for hardware merchants. This cooker is fitted with doors and its construction, the makers say, makes it so convenient and easy to operate that owners use them every day in the year. The broad claim is made that the O-hi-o will cook everything perfectly that can be boiled or baked on any kind of stove. If wood or coal stoves are in use, the O-hi-o cooker can be used to just as great advantage as on oil or gas stoves, it being necessary to have fire under only one stove hole.

Several special and excellent features are claimed for the 1907 O-hi-o square steam cooker, which was invented about four years ago, was put on the market



The O-hi-o Steam Cooker.

as the original square steam cooker, and has been constantly improved upon since that time.

In some of the O-hi-o Cooker Co.'s advertising matter fifteen reasons are given why the O-hi-o is "the only perfect cooker on the market," and these reasons are worth reading by any hardware dealer. All kinds of food, including roast meats, game, poultry, eggs, custards, fruits, puddings, and cakes, can be cooked in the O-hi-o "to the queen's taste" and the finest of china can be used in the cooker without injury.

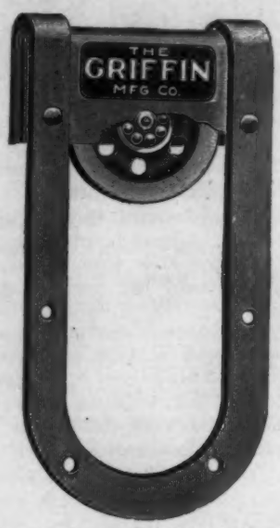
A very complete catalogue of the O-hi-o cookers is issued by the manufacturers and will be sent to merchants on request. They make special offers of handsome electrical display stands with the merchant's first order for one dozen or one-half dozen cookers, and urge dealers to order at once to get the full advantage of the spring and summer trade.

When writing the O-hi-o Cooker Company at the above address, kindly mention THE AMERICAN ARTISAN.

Buhl, Idaho—T. B. Gilmore of Dayton, Washington, has made arrangements to open a new hardware store here in a short time.

GRIFFIN'S STEEL DOOR HANGERS.

Griffin's Improved Steel Door Hangers, made by The Griffin Manufacturing Co. of Erie, Pennsylvania, are all steel with the exception of the wheels. These hangers come in three sizes: No. 10 with solid axle,



Made Entirely of Steel (Wheels Excepted.)

No. 11 with roller bearings, and No. 12 also with roller bearings and extra heavy. These hangers having hard steel axles and roller bearings, are anti-friction on any length of track. Their construction is very heavy and they are guaranteed to give perfect satisfaction when used with the heaviest doors.

Griffin's E. K. Steel Track.

The E. K. Steel Track made by The Griffin Manufacturing Co. is said to be the strongest and stiffest track on the market and is described as suitable for any make of barn door hangers. The size of the track is 1¼ by 3-16 inch and it is made in 4-6-8-10-12 foot lengths. The material of the track itself is stiff steel, carefully straightened, while the brackets are made of the best malleable iron, firmly riveted on. Other steel tracks are also manufactured by the company. A complete catalogue of Griffin door hangers, track, etc., will be sent on request. When writing, kindly mention THE AMERICAN ARTISAN.

TAGS FOR STEVENS FIREARMS.

The Stevens Arms & Tool Company are now attaching tags containing detailed information, talking points, etc., to all of their firearms, for the benefit of both dealer and consumer. The merits of each arm are stated in plain language on these tags, which are of good cardboard, 6x3 inches in size, and give instructions for cleaning, use of cartridges, etc., and plainly designate the firearm for which the tag is intended.

The company claim to be the first in the firearm manufacturing field to adopt this up-to-date plan of acquainting both the trade and the consumer with the exact uses of the various models made. It is, of course, obvious that the more a merchant or his clerks know about the products they handle, the better it is for the customer who wishes information and is in the receptive mood for a purchase.

The Stevens tags, it is certain, will be greatly appreciated and seem to be a move in the right direction. They might be aptly termed "Stevens' Ready Reference Tags," as they show in distinct form just what the firearm to which they are attached is capable of and also the exact uses of the model in question.

A complete catalogue of Stevens firearms will be sent to any dealer on request. Address the company at Chicopee Falls, Massachusetts, and when writing, kindly mention THE AMERICAN ARTISAN.

WASHING MACHINES IN WALES.

In regard to the market for washing appliances, Consul D. W. Williams writes from Cardiff, Wales:

"Female labor is very cheap throughout the United Kingdom, and until recent years the demand for domestic labor-saving appliances was not very great. In Wales, however, a change is coming; agriculture is dying out and mining is engrossing the attention of the masses, fully one-half of the adult male population being thus engaged. The better element among the miners are emerging into the middle class, and this accounts for the change in the status of their women. The demand for various domestic machines is now noticeable, and the demand for washing machines is growing rapidly.

"American machines on the market, although underselling the British makes, are only beginning to gain a foothold. Hustling salesmen who can act as demonstrators and representing local dealers in the largest cities—such as Cardiff, Newport, Swansea, Merthyr Tydfil, Aberdale, and Pontypool—could build up a great business. To compete successfully with British makes, American machines must be sold delivered at $8.50 or less. Some washing machines have been imported from Baltimore to Cardiff via the Lord line of steamers."

In the construction of the great City Investing Building, Broadway, Cortlandt and Church streets, New York city, all of the structural steel work above the street level is being protected from corrosion with Dixon's Silica Graphite Paint, manufactured in one quality, four colors, by the Joseph Dixon Crucible Company, Jersey City. By way of celebration of this fact the Dixon Company have prepared a wall calendar, the feature of which is a magnificent view of the immense building as it will appear when finished, with its unusual architectural features and lines of graceful beauty. The calendar has several novel features which will be appreciated by all who see it.

THE NEW REMINGTON RIFLE.

In order to promote the sale by retailers of their new Remington Autoloading Rifle, the Remington Arms Company, Ilion, New York, furnish to dealers for advertising purposes a mortised electro such as is reproduced herewith, with space for wording to be supplied by the dealer. The trade is notified that

these electros can be had free of charge by simply applying to the company.

The new autoloading rifle promises to become a favorite with many hunters on account of the five smashing shots which it is designed to deliver at lightning speed, rendering the .35 caliber size especially suited for big game. The new Remington catalogue will be forwarded to any dealer on request. When writing, kindly mention THE AMERICAN ARTISAN.

NEW BOOK ON "OPPORTUNITIES."

The industrial department of the Rock Island-Frisco lines has just issued a 160-page book entitled "Opportunities" which is calculated to be of great service to any manufacturer or business man in search of a new location.

The book contains a concise write-up of each town and city along the 13,500 miles of railroad embraced in the Rock Island, Frisco and Chicago & Eastern Illinois lines, and in parallel columns on the same page with the description of the community there appears a list of the existing openings for business houses, factories, mills and industries of all kinds.

Many new towns and cities have sprung into life along the numerous newly constructed lines of the Rock Island-Frisco, and in these communities especially fine openings for business are to be found.

Any manufacturer or business man interested in changing his location can secure a copy of "Opportunities" by addressing M. Schulter, Industrial Commissioner, Rock Island-Frisco Lines, St. Louis, Missouri.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND INCORPORATIONS.

Madison Lake, Minnesota—Paul Fasnacht has opened a new hardware store here.

Chicago, Illinois—Washington Heights Hardware Company, capital stock $6,000, to deal in hardware and paint.

Assaria, Kansas—The Assaria Hardware Company, incorporated with a capital stock of $16,000.

Rusk, Texas—W. H. Wallace Hardware Company, capital stock $10,000.

Harrisonburg, Iowa—Wilton-Nicholas Hardware Company, incorporated with $50,000 capital stock.

Grand Island, Nebraska—The A. C. Lederman Company have incorporated to deal in hardware.

Anselmo, Nebraska—Leonard Brothers are a new firm in the retail hardware business here.

Reardan, Washington—The Reardan Implement, Hardware & Furniture Company has been incorporated with a capital of $25,000.

BUSINESS CHANGES.

Granada, Minnesota—F. R. Field of the hardware firm of Field & Boston has sold his interest to George Chipman.

Mt. Union, Iowa—H. R. Williams & Son have sold their hardware stock to Messrs. Wick & Mathews.

Wilcox, Nebraska—The hardware stock of John Funk has been sold to James H. Current of Bladen.

Magnolia, Iowa—The firm of Case & Frazier, hardware dealers, have dissolved and the successor will be the Case Hardware Company.

Durango, Colorado—Stubbs & Jakway have sold their hardware and lumber business.

New Albany, Indiana—Albert W. White has sold his hardware business to L. H. Harpring of Louisville, Indiana.

Colville, Washington—C. T. Frennessan has sold his interest in the Colville Hardware Company to A. J. Montgomery.

Mt. Carroll, Illinois—Fraser & Son have sold out their hardware business to Bills and Ewens.

Rudd, Iowa—Gene Holbrook has sold out his hardware business to Miller & Son.

Manistee, Michigan—Otto Rosenfeld has sold his hardware stock to N. T. and James Christopherson.

Silver City, Iowa—I. S. Little has traded his hardware stock with C. W. Hammer, Jr.

Wilmington, North Carolina—R. E. Blake has become sole owner of the hardware firm of Beery & Blake.

Roland, Iowa—B. L. Briston sold his interest in the hardware firm of Twedt & Briston to Joseph Twedt.

MISCELLANEOUS.

Minden, North Dakota—The Haws Hardware & Furniture Company are making plans for the erection of a new building on 4th Street and Minden Avenue to be 44x140 feet.

Dalton, Georgia—The Bishop Hardware Company has made considerable improvements in and about its store.

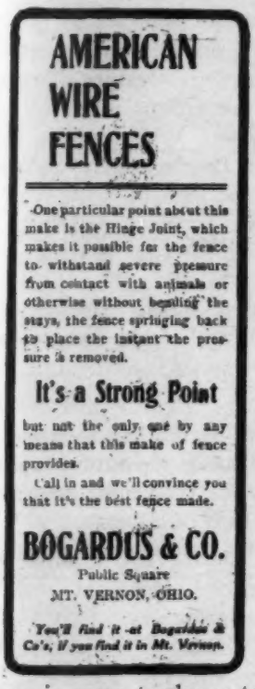
Metamora, Illinois—Bride Bros. have moved their hardware store from the Knoblauch Building to one door west of the bank.

The Henry Muntz Company has been organized at Elgin, Illinois, to combine the businesses of the Elgin Dairy Supply & Hardware Company, the Muntz Carriage Company and the Muntz Carriage & Harness Company. Henry Muntz is president of the new concern and Henry Muntz, Jr., secretary and treasurer. A three-story factory, 66x132 feet, with a deep basement, will be erected, with good railway facilities, in the rear of the company's hardware, paint and harness store at Brooks street and Dexter avenue. The Muntz carriage factory on Milwaukee street will be removed to the new building. H. Muntz, Jr., will manage the new company, Wm. Brady will have charge of the hardware and paint department and A. E. Lathrop will look after the wagon and buggy business.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

Bogardus & Company of Mt. Vernon, Ohio, have adopted a style of advertising that is somewhat unique and is reported to be effective. Mr. W. P. Bogardus, the head of the firm, finds after thirty-five years' experience in the hardware business that the direct appeal to the customer—the "personal element" of which we have frequently written on this page—is the kind of advertising that counts, and it will be noticed from the sample Bogardus advertisements which we reproduce herewith that they read like personal talks to the customer. It is the most approved modern method of selling goods through printer's ink and we believe that Bogardus & Company are on the right tack. Their advertisements usually occupy a 6-inch single column space in the local papers. They are frequently changed and seasonable goods are always advertised at the right time. The samples sent us by Bogardus & Company show cleverness in preparation of the "copy" and are fairly well set by the printer.



There is some tendency to mix up various styles of type, contrary to the best modern typographical usage, but for this the advertisement writer cannot be held accountable, though a study of type effects is strongly urged upon every advertiser.

The motto which appears in the Bogardus advertising, "You'll find it at Bogardus & Company's if you find it in town," is a good one—good enough to stick to.

If these ads of our friends in Mt. Vernon are run frequently enough to permit of experimentation, we would suggest trying the experiment of filling the entire space with a breezy talk on some one line of goods, using a full-faced type without display except a catchy headline. A price or two can be quoted with advantage in the body of the ad.

One of the advertisements with which the Toledo Cooker Company of Toledo, Ohio, are drawing public attention to the merits of their Ideal Steam Cooker is shown herewith. This is a really attractive ad of the kind that almost every housekeeper would read from beginning to end. It is worth studying. Retailers who examine it to find the reason of its selling quality—for it does sell the goods—will find that it is nothing in the world but a personal heart-to-heart

talk with prospective purchasers, telling them about the qualities of the Toledo Cooker just as a salesman would express them to a customer in the store. This kind of advertising is being used by the Toledo Cooker Company in the popular magazines of the country as a help to the hardware dealer who handles their goods. It can be supplemented with advantage to all concerned by the retailer's advertisement in his local paper.

* * *

There is only one best advertising medium for the retailer—that which reaches the people you want to buy your goods.

* * *

An advertising expert of national reputation recently said that the highest-priced space is generally the most profitable and it will usually pay the retail merchant to secure the best possible position in the local papers.

* * *

You never miss the water till the well runs dry—and you may never miss the advertising medium until you cannot get it.

The Gravity Lock Manufacturing Co. has been organized at Camden, N. J., to manufacture a springless gravity lock, etc.; capital, $300,000. Incorporators: Thomas G. Speigelmire, McClure, Pa.; Frederick W. Culbertson, Lewistown, Pa.; Susie Lewis, Camden, N. J.

Heating and Ventilating

THE HOLLAND FURNACE.

One of the special features of the Holland Furnace, manufactured by Holland Furnace Company, Holland, Michigan, is the patented fire-pot with double wall and sectional plates, in connection with which there is found a reliable and lasting water heating coil.

The Holland water coil, while separate from the fire pot, is really a part of the same. Made of cast iron, it will not burn out in case water does not circulate through it at all times, and being circular it can be

The Holland Patented Fire Pot, with Water Coil.

placed to have the inlet or outlet at any desired point in the casing. This construction gives additional radiation surface and hence extra heat. The coils are designed for the purpose of heating water either for circulation through radiators or in a tank for domestic purposes, or both.

A handsome catalogue of the Holland Furnace plainly shows its special patented features and will be sent to any dealer or furnace man on request. When writing, kindly mention THE AMERICAN ARTISAN.

ROBINSON TUBULAR FURNACES.

The line of furnaces manufactured by the Robinson Furnace Company of 107-109 Lake street, Chicago, includes the various sizes of the Robinson Tubular Furnace, which is a full reversible flue furnace; the Robinson Hot Blast Furnace, the Robinson Crescent Warm Air Furnace and others.

The Robinson Tubular Furnaces are positively claimed to be the only tubular furnace having direct draft and return flue with long fire travel. The ash pit is deep, allowing a free circulation of air under the grate, which tends to lengthen the life of the castings, and the dust flue with damper allows light ashes to pass upward into the combustion chamber and not out into the basement. All Robinson Tubular Furnaces are equipped with the "Eclipse" grate, by means of which the fire can be kept going continuously.

Because of its numerous features of excellence the makers claim that the Robinson tubular is the hottest, cleanest and best working furnace proposition ever offered to the trade. Catalogue and price list will be sent to any dealer on request. When writing, kindly mention THE AMERICAN ARTISAN.

THE WEIR COMBINATION FURNACE.

A development of the Weir All-Steel Gas and Soot Consuming Furnace consists of the use of a hot-water heater in connection with the hot-air feature. The construction of this attachment is very simple, it being a hollow casting that takes the place of sections of the regular fire lining and in no way obstructs the air or gas consumption. The Meyer Furnace Company of Peoria, Illinois, manufacturers of the Weir line, say that in cases where a building can be heated with hot air, with the exception of one or more distant rooms, their hot-water combination enables those rooms to be heated with water without any extra expense in fuel, while combustion is in no way retarded. The amount of radiation that can be added with this attachment is said to be from 100 to 600 feet and a new disk feature of the construction enables multiple connections to be made.

The Weir furnace is also now equipped so that a tank heater attachment can be made without cutting the furnace. Complete descriptive literature, illustrated with sectional views of the various forms of the Weir, will be sent on request. When writing the Meyer Furnace Company at Peoria, kindly mention THE AMERICAN ARTISAN.

PARAGRAPHS.

The United States Radiator Company, Dunkirk, N. Y., has increased its capital stock from $200,000 to $300,000. The company has under consideration the building of a new plant.

The Wadleigh Co., Salem, Mass., has been incorporated to manufacture ventilating apparatus; capital, $10,000. President, Curtis E. Wadleigh; treasurer and clerk, Evans Burnham, both of Salem.

The Michigan Heating Company has acquired the business of the Parrish Furnace Company at Jackson, Mich. The officers of the company are: J. B. Jones, Utica, N. Y., president; R. A. Gibson, Jackson, Mich., vice president; A. W. Jones, Chicago, secretary and manager; R. A. Oliver, treasurer.

Geo. A. Rothwisch has recently opened up a tin and sheet metal shop at 203 East Front street, Bloomington, Ill., and will do all kinds of sheet metal work and repairing.

An official of the Amalgamated Copper Company is reported as saying that the tendency of prices is upward rather than downward and that consumers can hardly expect modifications in quotations. The United Metals Selling Company, New York, continues to quote Electrolytic copper at 25¼ cents a pound. Some copper has been sold for delivery as far ahead as August and September, but amounts thus disposed of have been small in the aggregate.

Tinshop

TO MAKE AN OVAL FLARING PAN.

To The American Artisan:

In answer to the inquiry of Mr. E. M. Johnson, 305 Thirty-first street, Chicago, let me tell him how to draw the plan, elevation and patterns of an oval flaring pan, uniform flare all around.

The sketch which he submitted called for the patterns for an oval pan, 12 by 16 inches on the bottom, 10 inches deep, with a 4-inch flare all around.

PLAN OF OVAL FIGURE 1.

Draw the line A B 24 inches long and the perpendicular line C D 20 inches long, bisecting the line A B

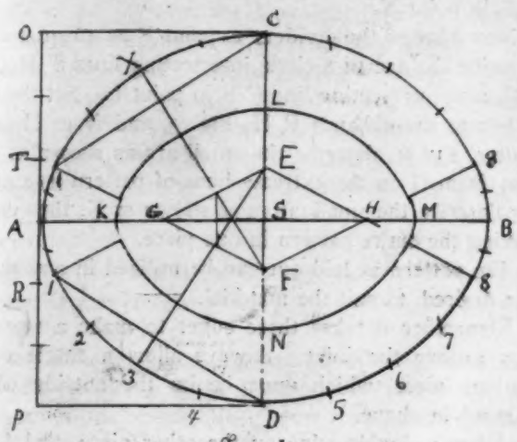


Fig 1.

at point S. Construct the rectangle C O P D as shown. Divide the line O-P into six equal parts, and make A G and B H each equal in length to P R. Through point R, the second point of division, and point G draw a line intersecting the line C D in point E.

Draw the line T G intersecting the line C D in point F, and draw straight lines connecting points E and F to point H. From point F as a centre, with radius F C, draw an arc of a circle extending to line T G; mark the intersection point I. Draw the chord of the arc I C, and through the center point of the line draw a perpendicular, intersecting the center point F, thus dividing the arc I C into two similar triangles, I F X and C F X. From point E as a center, with radius E D, describe the arc I D, drawing the chord of the arc I D and bisect the line by drawing a perpendicular to the center point E, also dividing the arc into two similar triangles, I E C and 3 E D. Make the distances C 8 and D 8 each equal to either C 1 or D 1.

From F and E as centers describe the arcs C 8 and D 8, and from points 8-8 draw the short lines tending to H. From C and D measure 4 inches on the line C D—mark the points L N. From F as a center, radius F L, describe the inner arc, intersecting T G and 8-H, and from E as a center, radius E N, describe the inner arc intersecting R G and 8-H. From H and G as centers describe the end curves of the oval as shown.

The patterns of this oval pan are laid out in precisely the same manner as the pattern for a flaring pan whose base is a circle.

Figure 2. At any convenient place on the paper draw the vertical line C D, equal in length to E D or F C, Fig. 1. Through point C draw the line A B perpendicular to C D, and from C as a center point describe the semi-circle A D B. Make D 1 and D 8, Fig. 2, equal to D 1 and D 8, Fig. 1. Join C 1 and C 8, Fig. 2. Make C K, Fig. 2, equal to either F L or E N, Fig. 1, and make C G, Fig. 2, equal to either F G or F H, Fig. 1. From C as a center point, Fig. 2, revolve points K and G to intersect line A B in points not lettered. Draw the line E F, Fig. 3, parallel to A B, Fig. 2, and bisect the line at point L. Make L E, L K, L O equal to C 1, C K, C G, Fig. 2. Draw the line L V indefinite and perpendicular to E F, and through points K and O on the line E F draw vertical lines indefinite. On the indefinite line drawn through K measure 10 inches, indicating the perpendicular height of the pan. The distance from E to K, Fig. 3, is 4 inches, therefore a straight line drawn from E to H gives the flare of the oval pan, and the line continued to intersect the indefinite line drawn through L gives point V at the apex of the triangle. Through

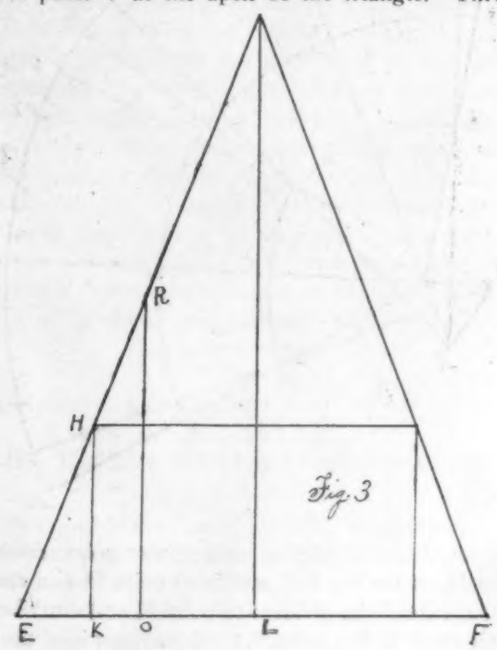


Fig. 3

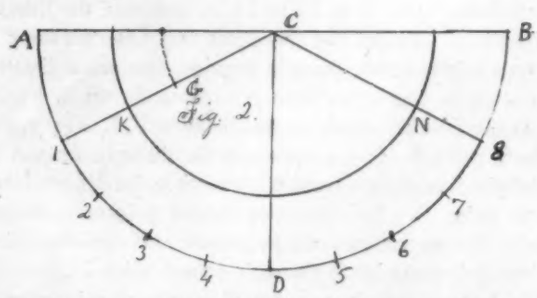


Fig. 2.

point O, Fig. 3, draw the line O R perpendicular to E F, and intersecting the slant line E V in point R. Draw the line F V and through point H draw a straight line parallel to E F, intersecting F V in a point not lettered. Now the distance V E, Fig. 3, is the distance to set the dividers to lay out the pattern for the base of the oval pan, extending from 1 to C and 8, and also extending from 1 to D and 8, as shown by the arcs of circles on Fig. 1, and also shown by the arc from 1 to D and 8 on the semi-circle, Fig. 2.

HOW TO LAY OUT THE PATTERNS.

At any convenient place on the paper establish the center point E, Fig. 4. Set the dividers to the distance V E, Fig. 3, and from the center point E, Fig. 4, describe an arc of a circle large enough to lay out the points of division from 1 to 8, inclusive, as shown in Fig. 1 and duplicated in Fig. 2.

On the arc of the circle, Fig. 4, establish point 1 at pleasure. The lower arc of the circle, Fig. 1, is divided into eight spaces and numbered 1, 2, 3, 4 D, 5, 6, 7 and 8. From point 1, Fig. 4, measure those distances on the arc of a circle previously drawn, and number the spaces from 1 to 8, inclusive, as shown. Draw straight lines from points 1 D and 8 to center point E. Take the distance V R, Fig. 3, in the divid-

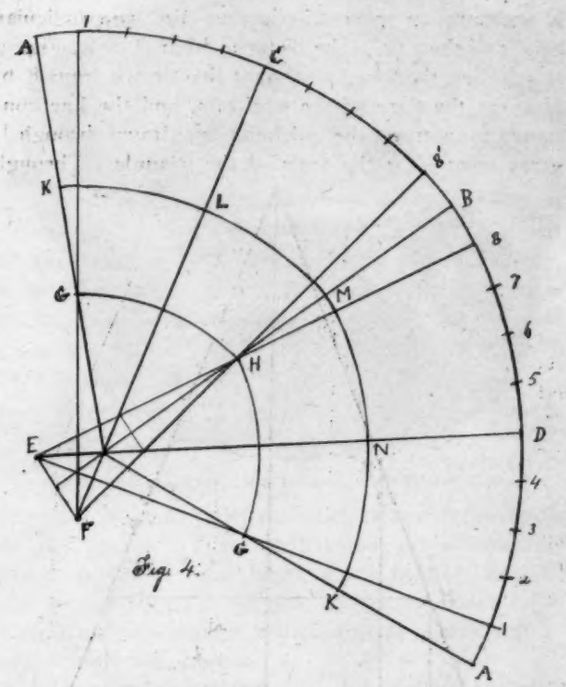


Fig. 4.

ers, and from E, Fig. 4, as a center point, establish point H, on the line 8 E, and from point H as a center, Fig. 4, extend the dividers to point 8, and describe the small arc 8 B 8'. Joint 8' to H and continue the line indefinite. Join B to H, and also continue the line indefinitely. To lay out the other arc it is necessary to establish the center point F, precisely the same distance from E in Fig. 4, as from E to F as shown in Fig. 1. Set the dividers again to the distance V E, Fig. 3, and from point 8', Fig. 4, measure the distance on the indefinite line drawn from 8' through point H, establishing point F. Join the two center points, E and F. The line so drawn must be square with indefinite line drawn from point B through center point H. As the dividers are set, from point F as a center describe an arc extending from 8' to C and 1 as shown on pattern.

The measuring spaces on this half-pattern are similar to the other half and of equal length. Connect point 1 with center point F and from F, with radius F H, describe an arc intersecting the line 1 F in point G. From point G as a center, radius G 1, describe a small arc indefinite, and on this arc from point 1 space the distance 1 A, Fig. 1, said distance being one-half the girth of the small curve of the oval. From point A draw a line through point G, continue as shown on the pattern.

From E as a center, Fig. 4, radius E H, describe an arc intersecting the line 1 E in point G. From G as a center, radius G 1, describe an indefinite arc, on which arc from point 1 space the distance 1 A, Fig. 1, and mark point A on pattern. Draw a straight line from A through G and continue as shown on pattern, thus completing the form of the pattern for the base of the oval pan in one piece.

HOW TO OBTAIN THE REQUIRED FORM OF THE PATTERN FOR THE TOP OF OVAL PAN.

Take the distance V H, Fig. 3, in the dividers, and from E as a center describe an arc of a circle intersecting lines 8 H and 1 G as shown, also intersecting line D E in point N.

Now change the dividers to point F as a center and describe the arc of a circle intersecting lines 8' H and 1 G, also intersecting line C F in point L. Set the dividers to the distance R H, Fig. 3, and from H as a center, Fig. 4, describe the small arc as shown at M, also from G on the extreme lines of pattern as a center describe the small curve as shown at K, thus completing the entire pattern in one piece.

The pattern as laid out can be utilized in any manner desired, to suit the material.

Remember it takes three edges to make a seam if you groove the joint. Always allow a single edge on one piece, which must be on the outside when formed in shape.

Allow a double edge on the other piece, and form the material so the double edge is turned in. Allow usual edges at top and bottom.

In Fig. 1 points G and H are centers to describe the end curves of the oval. The radius lines 1 F and 8 F pass through center points G and H. Place the triangle V E L, Fig. 3, with the base E L resting on the radius line 1 G F, Fig. 1. Point L coincides with center point F, point E with 1, point O with center point G, point K is found on the radius line at the joining of the two curves of the oval.

Now you can see that by erecting a perpendicular from point G to intersect line E V, point R, the intersection of the lines, is the center to describe the pattern for the end curve of the oval. The distance R E describes the base and R H the top of pattern. The girth is measured on the arc from point 1 to 1, as shown. Furthermore, you can see, by using the radius line I G F as an axis, to revolve the triangle on the paper, that point V, apex of the triangle, will fall on a perpendicular to point F, and the triangle V E L, Fig. 3, will be duplicated on the paper, and connected with Fig 1.

This is the practical method used in the workshop to find the center points to describe a pattern for a flaring article.

This problem has been laid out so that the radius C F or E D, Fig. 1, measured 12¾ inches. The distance V L, Fig. 3, measures 31⅞ inches. The slant line V E measures 34⅜ inches. The distance E R, Fig. 3, is 18 inches. The line K H, Fig. 3, is 10 inches. The line A B, Fig. 1, is 24 inches, C D is 20 inches, and the top of the oval pan is 4 inches smaller all around.

JOSEPH P. COLEMAN,

SHEET AND TINPLATE MAKERS' WAGES.

The bi-monthly examination of prices of shipments of tin plates, which occurred at Pittsburg May 10, gave the tin plate makers their third 2 per cent advance since January 1. The average price of shipments in March and April was $3.74.

The base of the scale is $3.40, each advance of a full 10 cents a box giving the men 2 per cent advance on the base of the scale. The examination for November and December showed an average between $3.50 and $3.60; the next showed above $3.60 and now this one shows above $3.70. The settlement governs the wages for May and June.

The skilled workers in the sheet mills obtain an advance of 3.6 per cent for May and June, through the higher prices realized on shipments of sheets during March and April. The examination made May 10 showed that the average price realized on shipments of 26, 27 and 28 gauge sheets during March and April was $2.46. The base of the scale is $2.30, as the average of the three gauges, with 2.6 per cent for each full 10 cent advance in the average realized price.

This is the first time that the sheet mill workers' wages have been advanced by the working of the sliding scale.

The sliding scale prevails only with the Amalgamated Association and the advance therefore would apply only in the union mills. More than half the American Sheet & Tin Plate Company's sheet mills are non-union, but the company has decided to give the percentage advance also in the non-union mills, although in these mills individual agreements are made, on a flat scale, with no sliding feature incorporated.

The men in the non-union tin plate mills controlled by the leading interest will also receive the same advance as the tin plate workers belonging to the Amalgamated Association.

THE WEIGHT OF A TON.

To The American Artisan:

The inquiry of your correspondent, R. H. T., of Philadelphia, in your issue of May 11th raised a question of considerable importance and is one which I hope to see freely discussed by your readers. We certainly should have a standard ton, uniform in all the states, for the handling of such important commodities as metals, coal, coke, etc.

It is all very well to say that as long as everybody knows there is a long ton and a short ton no confusion can arise, but I find in trade papers frequent references to both kinds of tons and also metal statistics given in terms of the metric ton. Thus we have the ton of 2,000 pounds, commonly known as the short ton, this being the ton most commonly used in this country; the ton of 2,240 pounds, known as the long ton, which is the ton invariably used in English trade, and the metric ton, in which continental European metal statistics are usually given, this last being a ton of 2,204.06 pounds. What is there to prevent the standardization of the ton in the United States as we have a standard foot and a standard yard?

At present I believe each state in the Union is a law unto itself in this matter and the ton varies in different states. Inconvenience to men in the metal business must invariably arise at times from this condition of affairs and I hope to see inaugurated through the agitation of the question in the columns of The American Artisan a movement for the national standardization of the ton. M. B. M.

Chicago, May 15, 1907.

To The American Artisan:

The question raised in your columns as to the weight of a ton is a most interesting one and I believe with your correspondent, R. H. T. of Philadelphia, that something should be done to secure uniformity in weight. The variation in the ton appears to be due to the variation in the hundredweight, which is sometimes 100 pounds, sometimes 112 pounds, and sometimes 120 pounds avoirdupois, according to differing laws or customs. By the legal standard, in England the hundredweight is 112 pounds, which makes the English ton, containing 20 hundredweight, weigh 2,240 pounds. In most of the United States, both in practice and by law, the hundredweight is 100 pounds avoirdupois, the corresponding ton of 2,000 pounds, sometimes called the short ton, being the legal ton in these states. I do not know just how many of the states have adopted the short ton, nor in how many of them the ton of 2,240 pounds is the standard, but I do know that there is no universal standard for the ton nor any uniformity in all the states, and this I think is a defect which should be remedied in the interest of interstate and international commerce.

Yours very truly,

Manufacturer.

Cleveland, Ohio, May 16.

THE TAYLOR WORKS AT CUMBERLAND.

The open-hearth steel works, rolling-mills and black-plate plant at Cumberland, Md., of N. & G. Taylor Company of Philadelphia, are a good example of a plant designed entirely for a special line of work, namely, the manufacture of tin plates of the highest grade.

This old-established firm—now claiming to be the largest independent manufacturers of tin and terne plate of all kinds—has been quietly improving and enlarging these works, and perfecting the processes of manufacture, to obtain products suitable for a variety of special purposes. They still retain their old organization as a private firm.

Some admirable results have been secured in special bright tin plates for drawing and stamping purposes, made on a base of soft open-hearth steel.

This firm has always been identified with the sale of tin plates of special quality, and for a long time has made no coke tin, the works at Cumberland and at Philadelphia being occupied fully with the manufacture of tin and terne plates of special quality.

The experience of N. & G. Taylor Co. as American manufacturers of tin plate dates back to the establishment of the industry in this country. The Cumberland works were acquired seven years ago, to pro-

vide the facilities for obtaining special grades of black plate, and the experience gained in these years is at the disposal of those users of special tin plates who may have found difficulty in securing a satisfactory quality.

TO RECOVER TIN FROM TIN CANS.

The United States Tin, Solder & Iron Company has been incorporated at Denver, Colorado, with a capital stock of $500,000, for the purpose of recovering the tin, solder, etc., from discarded tin cans and tinware. The officers of the company are J. H. Bills, president; H. D. McCutcheon, vice-president; John T. Johnson, treasurer; Albert H. Aronson, secretary. These with M. E. Hudson constitute the board of directors. All are Denver men except J. H. Bills, the inventor of the process the company will exploit, whose home is in Laramie, Wyoming. Secretary Aronson is a member of the board of supervisors of Denver and the others are well known to the business world of the Rocky Mountain region.

It is reported that a plant is being established in Denver with a capacity of 60,000 tin cans a day and that tributary companies are being incorporated in other states.

NOTES AND QUERIES.

PENNELL REELS.

From Flanegin Hardware Company, 310 Market Streeet, Logansport, Indiana.

Please give us the name of the manufacturer of Pennell Reels?

Ans.—W. J. Tryon, of Philadelphia.

ITEMS.

The Steel Corporation is now operating all of its sheet mills and 91 per cent of its tin plate mills.

The Chicago Corrugating Company, Chicago, has been incorporated, capital $2,500, to manufacture metal wares; incorporators, Frederick Woodcock, Fred A. Bischoff, Charles A. Statler.

The Baraboo, Wis., Republic says an entire trainload of cars was received from the American Can Company recently by the Michigan Refining and Preserving Company of Menominee, Mich. The train consisted of seventeen freight cars.

The Sykes Steel Roofing Company of Chicago, Illinois, and Niles, Ohio, are manufacturers of steel roofing, corrugated iron, etc., and give a hint to sheet metal workers in their statement that while freight charges are sometimes heavy charges they can save their customers money. Ask them about it per postal.

Consul-General A. A. Winslow, of Valparaiso, Chile, reports that the exports of tin from Bolivia increased from 3,794,494 pounds in 1897 to 27,234,944 pounds in 1905. The world's production and consumption of tin in 1905 was 93,376 tons and 94,755 tons, respectively. The United States in 1905 consumed 38,470 tons, or 40.6 per cent of the world's production.

The Canton Mfg. Company of Canton, Ohio, take great pride in their product and their sheet metal goods are invariably described as and confidently claimed to be high grade goods. In the list of their products are found metal ceilings, skylights, cornices, finials, ventilators, conductor pipe, eaves trough, roofing and siding. Dealers are invited to write them and get their prices.

COST OF ROLLING COPPER.

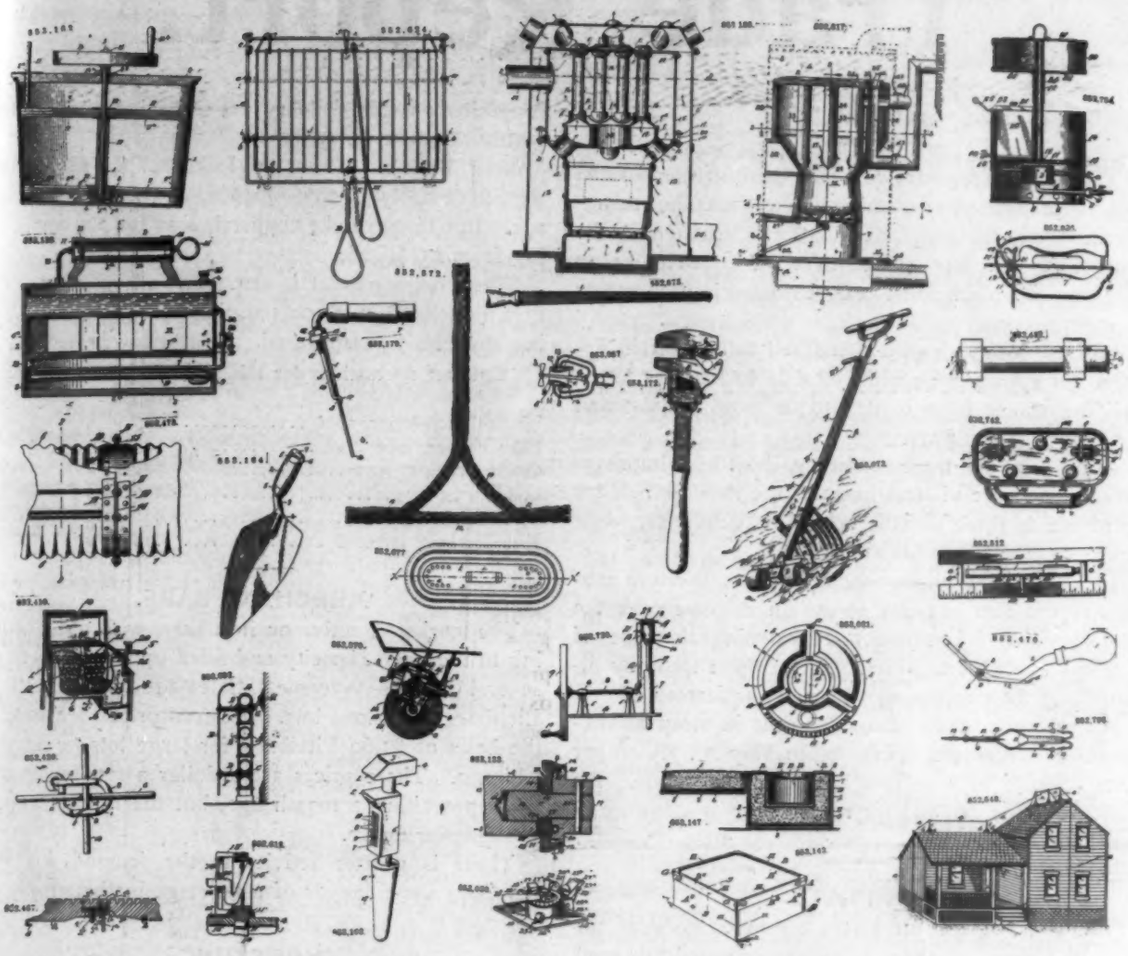
"One of the hardest things with which we have to contend to-day," said an official of a large metal producing corporation, according to Copper and Brass, of Detroit, "is the erroneous idea that many big buyers of metal goods have of the causes of market fluctuations. We have a base price established monthly traced to a simple tightening or loosening in the copper market. But when we attempt to increase our margin of profit above the base price there are many of our customers who cannot understand why we should demand more money. In other words, they ask us if it costs us more to roll 26c copper than it does to roll 25c copper.

"As a matter of fact, it does cost more to roll high priced copper than low priced. In the process of rolling copper, there is a certain amount of waste. Each time the copper is taken to the fire in the rolling process, a black oxide forms on the sheet or bar. This oxide has to be removed, and we of course re-refine what we can of it, producing 'scale.' No matter how thorough our system, however, a certain amount of this scale is lost in the process—a certain weight of it always washes away in the sewers or is otherwise wasted. Now in the case of 26c copper this waste is no greater in bulk than in the case of 25c copper, but its value is more, and thus the value represented by this loss is greater in proportion to the increased value of the main product, and the actual cost of producing a sheet of copper is more, for this and other similar reasons.

"No man can figure out the copper situation. I have only one thing to fear, and that is that all of us who are sitting back waiting for copper to drop, will rush into the market in a body when we see that it will not drop, and the price will soar still higher. I am afraid of a situation similar to that of last year. Copper was said to be 'off' and the big consumers decided to let the sellers of copper come to them with their goods. The consumers were reluctant to go into the open market and bid for the metal. They sat back as long as they dared and late in the summer when their stocks ran low and copper was still 'off,' they rushed into the market in a body, and the sellers of copper were able to dictate terms. Such a condition would not be an improbable outcome of the present situation."

A lady living near Perham, Minn., sent $1.25 to a Chicago mail order house recently for a pair of slippers. When the slippers arrived she paid 25 cents more for express, and then found that the slippers were too large. She wanted to exchange them at one of the local stores, and found that she could have bought a better pair of slippers there for 75 cents. It is the nicely worded advertisements of the catalogue houses that bring their trade. If the country merchants invested a little more time and money in judicious advertising they could put the catalogue houses out of business.—Michigan Tradesman.

NEW PATENTS.



852,419. Dish-Washing Machine. Josephine G. Cochrane, Chicago, Ill. Filed Sept. 8, 1905. Serial No. 277,505.

852,420. Tie for Wire Fences. Charles B. Conant, Adrian, Mich., assignor of one-half to Frederick A. Grabner, Adrian, Mich. Filed Feb. 25, 1907. Serial No. 359,171.

852,432. Carpenter's Gage. Benjamin O. Gudgen, Pittsburg, Kan. Filed June 28, 1906. Serial No. 323,812.

852,467. Shaking and Dumping Grate. Edward E. Strothman and Herbert L. Strothman, Superior, Wis. Filed Oct. 10, 1905. Serial No. 282,138.

852,470. Wood-Shaving Tool. Charles Swan, Corry, Pa., assignor to Joseph H. Duke, Corry, Pa. Filed Mar. 22, 1907. Serial No. 363,853.

852,478. Corrugated-Metal Culvert. Clifford D. Voris, Crawfordsville, Ind., assignor to Flora M. Voris, Crawfordsville, Ind. Filed Oct. 8, 1906. Serial No. 337,989.

852,512. Plumb-Level. Christian Larsen, Chicago, Ill. Filed Oct. 26, 1906. Serial No. 340,663.

852,548. Lightning-Conductor. William P. Finn, Dansville, N. Y. Filed Oct. 29, 1906. Serial No. 340,985.

852,570. Roller-Skate Truck. Cornelius F. Miller, Hamilton, Ohio. Filed Sept. 24, 1906. Serial No. 336,001.

852,572. Lightning-Conductor. William H. McCullough, Chicago, Ill. Filed Nov. 1, 1906. Serial No. 341,524.

852,617. Hot-Air Furnace. Harry F. Rasor, Barberton, Ohio. Filed Feb. 26, 1906. Serial No. 303,046.

852,618. Operating Mechanism for Washing-Machines. Solomon Ream, Millcreek, Ill. Filed Nov. 17, 1904. Serial No. 233,100.

852,624. Broiling and Toasting Device. De Leonard Rugg, Catskill, N. Y. Filed Jan. 26, 1906. Serial No. 297,960.

852,677. Lid for Cooking Vessels. Lewis Reaser, Reading, Pa. Filed Mar. 28, 1906. Serial No. 308,391.

852,720. Washing-Machine. John D. Hiss, Omaha, Neb. Filed June 30, 1904. Serial No. 214,720.

852,742. Handle. Edward R. Sargent, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut. Filed Dec. 13, 1906. Serial No. 347,679.

852,754. Heater and Cooker. John L. Adam, New Orleans, La. Filed Aug. 24, 1903. Renewed Jan. 6, 1905. Serial No. 239,888.

852,793. Fish-Hook. Herman C. Ladish, Milwaukee, Wis. Filed Feb. 4, 1907. Serial No. 355,551.

852,836. Wire-Working Tool. Morris Hays, Monmouth, Ill. Filed Nov. 14, 1906. Serial No. 343,376.

852,873. Steel for Sharpening Knives. John B. Davidson, Derby, Conn. Filed Nov. 6, 1905. Serial No. 286,145.

853,020. Window-Fastener. James W. Lyon, Evanston, Ill. Filed Aug. 29, 1906. Serial No. 332,479.

853,021. Gas-Burner. John L. Maloney and Edward S. Springer, Leavenworth, Kan. Filed April 5, 1906. Serial No. 310,121.

853,051. Burner for Heating and Illuminating Purposes. Henry Braby, Annandale, near Sydney, New South Wales, Australia. Filed June 5, 1905. Serial No. 263,841.

853,072. Combination Weed Gatherer and Cutter. John N. Eames, Medford, Mass. Filed April 7, 1906. Serial No. 310,545.

853,092. Shield for Heating-Coils. Peter S. Knoth, New York, N. Y. Filed Mar. 16, 1906. Serial No. 306,339.

853,102. Wrench. Baker Mallett, Edwards, Miss. Filed May 31, 1906. Serial No. 319,618.

853,133. Lock-Bolt. Ulysses G. Smith, Lansford, Pa. Filed Aug. 17, 1906. Serial No. 330,993.

853,138. Sad-Iron. John F. Willey and Elmer W. Watson, Versailles, Ill. Filed Mar. 14, 1906. Serial No. 305,988.

853,143. Sheet-Metal Box. Charles T. Wootten and Artemas P. Richardson, Philadelphia, Pa.; said Wootten assignor to said Richardson. Filed Mar. 13, 1906. Serial No. 305,750.

853,147. Cooking Apparatus. James R. Adams, Kenosha, Wis. Filed June 28, 1906. Serial No. 323,795.

853,153. Hot-Air Furnace. John L. Berger, Denver, Colo., assignor of one-fourth to George Anderson, Denver, Colo. Filed June 12, 1905. Serial No. 264,760.

853,162. Washing-Machine. Isaac N. Cornell, Baileys Mills, Ohio. Filed Nov. 3, 1906. Serial No. 341,846.

853,164. Masonry-Tool. Patrick J. Courtney, Elizabeth, N. J. Filed Feb. 2, 1907. Serial No. 355,353.

853,172. Machinist's Wrench-Hammer. Owen P. Hughes, New Castle, Pa. Filed July 17, 1906. Serial No. 326,542.

853,179. Hoe. James S. Lester, Atlanta, Ga. Filed Feb. 20, 1907. Serial No. 358,340.

Trade Report.

HARDWARE.

The demand for hardware has been affected by the unseasonable weather of the last few weeks, but manufacturers express satisfaction with the situation, as the temporary lull has given them an opportunity to catch up on orders and to effect needed improvements in their factories.

Eastern jobbers report a marked falling off in demand for spring lines, while local labor troubles in the building trades have tended to decrease the demand for builders' hardware.

In the wire nail trade conditions show little improvement. Shortage of steel hampers the mills, which are from one to three months behind on deliveries, while stocks in jobbers' hands are light.

In spite of the unseasonable weather, Western jobbers report that business shows an increase over the same period of last year. Threatening shortage of crops is expected to have its effect upon trade by diminishing the purchasing power of the farmer.

An advance of 10 to 15 per cent in strap and T-hinges is announced to take place May 20. A 10 per cent advance in revolvers has also been made. An increase in the demand for roller skates is a feature of the trade.

TIN PLATE.

The demand for tin plates continues good at unchanged prices. A sharp advance was noted this week in the price of pig tin, due to the difficulty of unloading the metal in New York on account of the longshoreman's strike. Specifications for tin plate are extremely heavy.

Fire on Monday, May 13, at the Aetna-Standard plant of the American Sheet & Tin Plate Company destroyed the warehouse and will possibly interfere with shipments from that plant for awhile. The stock destroyed, however, was not large.

The base price on coke tin plate continues at $3.90 f. o. b. Pittsburg.

American coke tins, I. C., from store, New York:	
Bessemer steel, 107 lbs., 14x20	$4.55@4.60
Bessemer steel, 100 lbs., 14x20	4.40@4.45
Bessemer steel, 95 lbs., 14x20	4.30@4.35
Bessemer steel, 90 lbs., 14x20	4.20@4.25
Am. charcoal ternes, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.50@4.55
Worcester grades, 14x20, 100 lbs	4.35@4.40
Worcester grades, 20x28, 200 lbs	8.25@8.30
For prompt shipment f. o. b. mill:	
Coke tins, 14x20, I. C	4.05@4.10
Coke tins, 14x20, 100 lbs	3.90@3.95
Coke tins, 14x20, 95 lbs	3.85@3.90
Coke tins, 14x20, 90 lbs	3.80@3.85
Charcoal terne, 20x28, I. C	7.50@7.55
Charcoal terne, 20x28, 200 lbs	7.20@7.25

Usual differences for odd sizes and weights.

COPPER.

There is little new to report in the American copper market and prices are unchanged. Large contracts for third quarter delivery are expected to be made within the next thirty days.

New York quotations on Lake copper are 24½@25½c, electrolytic 23½@24½c, and casting, 22½@23c. In Chicago Lake copper is sold for 26c and casting from 25½@26c.

The foreign market is stronger and spot copper is firm in London at £102 10s, the recent weakness having apparently disappeared.

Extreme fluctuations for this year:

	Highest.	Lowest.
Electrolytic copper, spot	25½	23½
Lake copper, spot	25¾	24
Casting copper, spot	24⅞	22½
London, spot	£110 15 0	£ 91 15 0
London, futures	112 0 0	93 10 0
London, best selected	118 0 0	107 0 0

MERCHANT BARS.

The market is active on iron bars, with mills working to their full capacity and filled up with orders for several months to come. Sales are made at $1.75 Pittsburg in carload lots. Western prices are held on the basis of $1.60 Pittsburg for large lots or $1.76½ Chicago. These prices are a dollar a ton lower than those prevailing a month ago, but the market is firm at the lower figure.

There is greater activity in the demand for steel bars and some danger of a shortage in the supply.

SHEET ZINC.

The price of sheet zinc f. o. b. smelter, wholesal lots, is $8.50, with the usual extras and discounts.

For small quantities out of store, dealers are quoting $9.10 for cask lots and $9.50 for less than cask lots delivered f. o. b. New York.

SHEETS.

The market for sheets continues very strong and premiums are generally paid for any early delivery, but there is said to be no likelihood of an official advance in prices.

The following prices are for 500-bundle lots and over, f. o. b. mill:

		—Galvanized—	
Gauge.	Net.	Net.	List.
No. 30	$2.85	$4.25	21
No. 29	2.75	4.00	19
No. 28	2.60	3.75	17
No. 27	2.50	3.55	16
No. 25	2.45	3.35	15
No. 22	2.40	3.15	14

PIG IRON.

The present heavy buying movement in pig iron has so depleted the available tonnage for delivery during the third and fourth quarters of the year that some alarm is beginning to be felt as to where the supply is to come from to meet actual requirements of melters. It is announced that the large companies in the South have sold all their available production in the last half

of the year and it is now stated that many of the Pennsylvania furnaces are sold up to 20 per cent of their possible production, for the last quarter.

Prices are stiffly held on all grades and there is now little No. 2 foundry available under $24. Demand for foreign iron for early delivery continues to increase and large sales are reported made during the week at from $22 to $23. Southern No. 2 foundry is quoted at $19@20 Birmingham for third quarter delivery.

CHICAGO MARKET.

Last Half.

Lake Superior charcoal	$ 27.50
Northern Foundry No. 1	25.50
Northern Foundry No. 2	25.00
Northern Foundry No. 3	24.50
Northern Scotch Foundry	25.50
Ohio Strong Softeners No. 1	24.80@25.30
Ohio Strong Softeners No. 2	24.30@24.80
Southern Foundry No. 1	24.85@26.35
Southern Foundry No. 2	24.35@25.85
Southern Foundry No. 3	23.85@25.35
Southern Foundry No. 4	23.35@24.85
Southern No. 1 Soft	24.85@26.35
Southern No. 2 Soft	24.35@25.85
Southern Gray Forge	23.35@23.85
Southern Mottled	22.85@23.35
Malleable Bessemer	24.50@25.00

PITTSBURG MARKET.

Prompt Delivery Small Lots.

No. 2 Northern	$25.85
Gray Forge	22.85
Bessemer	23.85
Basic	23.85

Second Half.

Bessemer	$23.85
Basic	23.85
Foundry	23.85
Gray Forge	22.85
No. 2 Southern	23.85
Gray Forge, Southern	22.35

BIRMINGHAM MARKET.

No. 1 Foundry, 2d quarter	$22.00@22.50
No. 1 Soft, 2d quarter	22.50
No. 2 Foundry, Spot	22.50@23.00
No. 2 Foundry, 2d quarter	21.50@22.00
No. 2 Foundry, 3d quarter	19.00
No. 2 Foundry, 4th quarter or last half	18.50@19.00
No. 2 Soft, 2d quarter	21.00@22.00
Gray Forge, 2d quarter	19.00@20.00

CHICAGO OLD METAL MARKET.

Clean heavy copper	$19.00
Clean heavy copper wire	19.00
Light copper	17.00
Heavy composition	17.00
Heavy yellow brass	14.50
Light brass	12.00
Yellow borings	13.50
Red borings	15.00
Heavy lead	5.50
Tea lead	5.00
Scrap zinc	5.12½
Block tin pipe	37.50
Mixed pewter	29.00
Clean car brasses	17.00
Stereotype	7.25
Electrotype	

Matthew Addy & Company, Cincinnati, will say in their weekly report:

"To simply say the pig iron market is active does not give an adequate idea of the strain under which producers and consumers are laboring. Prices in the past two weeks have advanced from $18.50 f. o. b. Birmingham for No. 2, fourth quarter delivery, to $20. This sensational advance has been the consequence of heavy buying. In the South third quarter iron is now scarce, and the greater part of the fourth quarter metal has been sold. In the North the furnaces are even better sold up than in the South, and the asking price for what little iron is left is $25 f. o. b. Ohio furnace. And orders are being taken at these prices. Exactly what the belated buyer is going to do to secure a supply of iron is a question that must disturb him not a little.

"There is more and more talk of $30 iron. Every condition is ripe for a squeeze that would put prices up to this figure And yet all furnace men know that there could be no greater misfortune than to have prices forced to such a point that the consumer would see his business ruined. It never has been and never will be a good plan to kill the goose that lays the golden eggs. For months now the tendency has been not so much to reduce the price of spot iron as to advance the price of forward iron to a parity with spot. And to-day the prices for spot and forward iron are very nearly the same.

"The week has been marked by a tremendous inquiry and good sales. Prospective buyers have not been able to find all they wanted. Steel making irons have been in particular demand.

"We mentioned in our last report inquiry and sales for 1908. Such inquiries are getting more and more numerous. The northern furnaces are quoting for next year on a basis of $22. One very important interest reports that a large tonnage of 1908 iron has been booked.

"Coke sales are good, and prices are about what might have been expected at this time of the year."

Rogers, Brown & Co., Cincinnati, will say in their weekly report:

"The week has added further strength to the pig iron market in all districts. Advances in price on Northern and Southern iron have had no apparent effect in diminishing the amount of buying, which has been large. Business is being placed freely for the fourth quarter, wherever tonnage is available, but present reports indicate that fourth quarter iron is being rapidly covered. Furnaces continue to report withdrawal from the market for 1907. Buying of Southern iron for the first quarter of next year continues and some inquiry has developed for first half of 1908, and even longer.

"There are no large lots of Bessemer or Basic iron in the Pittsburg district available for 1907 delivery, occasional small lots as they present themselves being eagerly taken. In general it appears that never before have furnaces been so well sold up at this time of the year for such an extended period ahead.

"It has been questioned whether the actual purchases now on the books of furnaces are for tonnage to be used in getting out work which buyers stand to deliver. All indications point to this being for bona fide 1907 consumption requirements. It is hard to say where the irons for the complete demands of 1907 melt will come from.

"Considerable improvement in buying of rails and other steel forms has added strength to already strong conditions and has proved those mistaken who thought that the recent lull in this particular presaged the beginning of a decline.

"Coke is easier. Shipments are coming forward promptly on contracts and there is a good supply of both Furnace and Foundry coke offering. There is some improvement in inquiry, particularly for contracts covering six months or a year ahead."

The Wickwire Steel Company, recently organized at Buffalo, New York, with a capital of $1,000,000, is the outgrowth of Wickwire Brothers, Cortlandt, New York, manufacturers of wire nails, wire, wire cloth, netting, etc., and will build a blast furnace and ore docks on the Niagara River near Buffalo, to make pig iron to be used in the company's plant at Cortlandt in the manufacture of wire products. The offices of the Wickwire Steel Company have been established in the White Building, Buffalo.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box
AC	14x20	$7 20
CX	14x20	8 25
CXX	14x20	9 40
CXXX	14x20	10 65
CXXXX	14x20	11 80
IC	20x28	14 50
IX	20x28	16 50
IXX	20x28	18 95
IXXX	20x28	21 35
IXXXX	20x28	23 75

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$8 50
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes 270 lbs	IX	20x28	11 25

PIG IRON.

Lake Sup. Charcoal	$26 00@$26 50
North'n Fdy., No. 1	26 00@ 26 50
North'n Fdy., No. 2	25 50@ 26 00
North'n Fdy., No. 3	25 00@ 25 50
Northern Scotch Fdy	26 00@ 26 50
Ohio Strong Softeners, No. 1	26 30
Ohio Strong Softeners, No. 2	25 80
Southern Fdy., No. 1	23 40@ 25 40
Southern Fdy., No. 2	22 90@ 24 90
Southern Fdy., No. 3	22 40@ 24 40
Southern Fdy., No. 4	21 90@ 23 90
Southern No. 1 Soft	23 40@ 25 40
Southern No. 2 Soft	22 90@ 24 90
Southern Gray Forge	21 40@ 23 40
Southern Mottled	20 90@ 22 90
Southern Silveries, 4 to 6 per cent Silicon	27 40@ 29 90
Jackson Co. Silveries, 8 to 10% Silicon	31 40@ 33 40
Ala. and Geo. Car Wheel	28 40@ 28 90
Malleable Bessemer	25 50@ 26 50
Standard Bessemer	25 50@ 26 50
Basic, Pittsburg	22 85

BLACK STEEL SHEETS.

Nos. 11-12 per 100 lbs	$2 60
Nos. 13-14 per 100 lbs	2 65
Nos. 15-16 per 100 lbs.	2 70
Nos. 17-21 per 100 lbs.	2 75
Nos. 22-24 per 100 lbs.	2 80
Nos. 25-26 per 100 lbs.	2 85
No. 27 per 100 lbs.	2 90
No. 28 per 100 lbs.	3 00

GALVANIZED.

Nos. 10-11 per 100 lbs.	$3 15
Nos. 12-14 per 100 lbs.	3 25
Nos. 15-16 per 100 lbs.	3 35
Nos. 17-21 per 100 lbs.	3 50
Nos. 22-24 per 100 lbs.	3 65
Nos. 25-26 per 100 lbs.	3 85
No. 27 per 100 lbs.	4 05
No. 28 per 100 lbs.	4 25

POLISHED SHEET STEEL.

No. 24 per 100 lbs.	$4 90
No. 26 per 100 lbs.	5 00
No. 27 per 100 lbs.	510
No. 28 per 100 lbs.	520

SMOOTH STEEL.

Wood's Smooth,	No. 20	$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $16 20, "B" $9 20
Dickey Planished Sheet Steel....8½c

SOLDER.

XXX Guaranteed ½ & ½ . per lb. 26½c
Commercial ½ & ½ .....per lb. 26 c
No. 1 Plumbers..... 24½c

SHEET ZINC.

600 lb. Casks.....case, per cwt.	9 50
300 lb. Casks.....per cwt,	9 50
Sheets.....per cwt.	10 50

COPPER.

Copper, sheet, 100 lbs. over, base, 32c

TIN PIGS AND BARS.

Banca, pigs, per lb..... ....44c
Straits, pigs, per lb.....44½c
Straits in bars, per lb 47c

LEAD.

American Pig.....6¼
Bar.....7½c
National (White) brands (in less than 100 lb. lots), per lb.....8½c

Sheet.
Full coils.....per 100 lbs. $9 00
Cut coils.....per 100 lbs. 9 50

HARDWARE.

ADZES.

Carpenters'.
Plumbs.....40&10%

Coopers'.
Barton's 20%
White's 15%

Railroad.
Plumbs.....40&7½%

Ship.
Plumbs.....40%
White's 12½%

AMMUNITION.

Caps, Percussion—per 1,000.
F. L. Waterproof, 1-10s.....40c
G. D.....35c
Musket.....60c

Cartridges.
Winchester Rim Fire Ctgs...50&23%
Winchester Cent Fire, Pistol and Rifle.....25&3%
Winchester Cent Fire, Military and Sporting Ctgs.... 15&8%
Winchester Blank Ctgs. 22 cal. $1 25
Winchester Blank Ctgs. 32 cal., C. F..... 4 60
Winchester BB Caps, Rnd. ball 1 50
Winchester BB Caps, Conical ball..... 1 05
Winchester Cent. Fire, Military and Sporting Ctgs ....15&8%

Primers.
Berdan Primers $1 00
Winchester Primers.....20%

Shells.
New Rival Empty Paper Shells, 10 and 12 gauge.....25%
New Rival Empty Paper Shells, 16 gauge.....20%
Repeater Empty.....20%
Leader Smokeless.....25%
Winchester Repeater Loaded Shells .....40&5%
Winchester Leader .....40-10&10%
New Rival Loaded Shells ..... 33⅓ & 11%

Gun Wads—per 1,000.
Winchester Gun Wads.....15%

Powder. Each
DuPont's Sporting, kegs .....$ 50
" " ½ kegs..... 2 50
" " ¼ kegs..... 1 40
Dupont's Sm'k'less. 50-lb. drum 22 45
" " 25-lb. kegs. 11 3
" " 12½-lb. kegs 5 80
" " 6¼-lb. kegs. 2 97
" " 1-lb. cans.. 15

Shot.
Drop shot, sizes smaller than B, 25-lb. bags, per bag 1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag..... 2 20
Buck Shot, 25-lb. bags, per bag 2 20
Chilled Shot, 25 lb. bags, " 2 20

ANCHORS.

Expansion Screw Anchors 10%

ANVILS.

Trenton, 70 to 80 lbs.....9½c per lb
Trenton, 81 to 150 lbs.....9½c per lb

ASBESTOS.

Board and Paper.....25%

AUGERS.

Boring Machine 70%
Irwin's.....40&10%
Carpenters' Nut 70%

Hollow.
Bonney's—list $30.00 .....75&5%
Stearn's, No. 3 ..... 36 00

Post Hole.
Digwell, 8-inch..... per doz. 12 50
Iwan's Post Hole and Well.. 40%
Vaughan's, 4 to 9-in., per doz. 6 25

Rafting.
Snell's.....50&5%

Ship.
Ford's, with or wi'out screw 40-12½%
Snell's, " " " 40-5%

AWLS.

Brad.
No. 3 Handled.....per doz. $0 40
No. 1050 Handled .... " 80
Shouldered, assorted, 1 to 4, ...per gro. 1 20
Patent asst'd, 1 to 4 .. " 85

Harness.
Common..... " 95
Patent..... " 90

Peg.
Shouldered .....per gro, $1 20
Patent..... " 60

Scratch.
No. 1, handled..... " 4 80
No. 15, socket handled. per doz. 1 35
No. 7 Stanley ..... " 1 80

Sewing.
Common.....per gro. 90
Patent..... " 90

AXES.

Boy's Handled.
Lippincott, 3 lb .....per doz. $5 25
Falls City..... " 5 25

Broad.
Plumbs, West, Pat.....40-2½%
" Can. Pat.....40-7½%
" Firemen's (handled). .....per doz $18 75
Plumbs, Miners (handled) " 6 75

Single Bitted (handled).
Gladiator 3 to 4 lbs., pr dz. $11 00
Flint Edge " " " 9 25
Standard " " " 9 25
Elec. Chopper, Forest Clipper..10 50
Perfect Premier " " 10 00
Crown " " " 7 00

Single Bitted (without handles).
Gladiator 3 to 4 lbs. per doz. $8 25
Flint Edge " " 6 75
Standard " " 6 75
Electric Chopper " " 8 00
Perfect " 7 50
Crown " " 6 00

Double Bitted (without handles).
Gladiator 3 to 4 lbs. per doz. $11 25
Flint Edge " " 9 50
Perfect " " 10 75

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's..... ....50%
Pelouze 20%

BARS, CROW.

Pinch or Wedge Point.....cwt. $3 25

BASKETS.

Clothes.
Small Willow .....per doz. $6 25
Medium " ..... " 7 25
Large " ..... " 8 00

Galvanized Iron. ½ bu. 1 bu. 1½ bu
Per doz..... $4 75 6 50 8 00

BEATERS.

Carpet. Per doz.
No. 10 Coppered (Spring Wire..$0 90
No. 12 Spring Wire 1 10
No. 10 Preston 95

Egg. Per doz
No. 50 Imp. Dover..... $0 70
No. 102 " " tinned..... 85
No. 150 " " hotel 1 40
No. 10 Heavy hotel tinned.... 3 10
No. 13 " " " 3 30
No. 15 " " " 3 60
No. 18 " " " 4 50

BELLOWS.

Blacksmiths' 65%

Hand.
8 inch.....per doz. $7 50
10 inch..... " 9 50

Moulders'.
12 inch..... " 11 00

BELLS.

Call.
3 in. Nickeled Rotary Bell, bronzed base .....per doz. $5 00

Cow.
High Grade .....60&10%
Kentucky .....70&10%

Door. Per doz.
New Departure Automatic....$6 00
Rotary.
3 in. Old Copper Bell 4 00
3 in. Old Copper Bell, fancy ... 6 00
3 in. Nickeled Steel Bell..... 4 50
3½ in. Nickeled Steel Bell..... 5 00

Hand.
Hand Bells, polished 50%
White Metal.....50%
Nickel Plated.....40%
Swiss.....40&10%
Silver Chime 33⅓%

Miscellaneous.
Church and School, steel alloy.....50&10%
Farm, lbs..... 40 50 75 100
Each $1.25 1.60 2.35 2.85

BEVELS, TEE.

Stanley's, rosewood handle, new list.....25%
Stanley's iron handle.....35%

BINDING, OILCLOTH.

Zinc 80%
Brass.....70&10%
Brass Plated.....75&5%

BITS.

Auger.
Extra Double Spur .....70&10%
Ford's Car and Machine...40&12½%
Triumph .....50&5%
Ford's Ship.....40&12½%
Irwin .....50&5%
Russell Jenning's.....25&10%
Clark's Expansive.....50-10&5%
Steer's " Small list, $22.00..25%
" " Large " $36.00..25%
Irwin Car 45%
Ford's Ship Auger pattern Car.....40&12½%

Center .....40&10%

Countersink.
No. 18 Wheeler's.....per doz. $1 25
No. 20 " ..... " 1 75
American Snail head. " 75
" Rose " " 90
" Flat..... " 75
Mayhew's Flat..... " 1 25
" Snail ..... " 1 25

Dowel.
New Jennings.....40&10%

Gimlet.
Standard Double Cut.....60%
German Pattern .....per doz. $0 60
German ..... " 65
Gouge ..... " 80
Spoon ..... " 80
Countersink..... " 1 00

Reamer.
Jenning's Square ..... " 2 50
Standard Square ..... " 75
German Octagon..... " 75

Screw Driver.
No. 7 Common ..... " 50
No. 1 Triumph..... " 1 25
No. 2 " ..... " 1 50
No. 340 Shepardson's.. " 1 25
No. 1 Smith's..... " 1 25

BLACKING, STOVE. (See Polish)

BLADES, SAW.

Butchers'.
Standard ¾ & 1¼ in. 40%
Clock Spring 40%
Star 15%
Coil ..... each $1 50

Hack.
Disston's ..... 25&5%
Flexible ..... 33⅓&5%
Star ..... 30&5%

Wood.
Jackson's ..... per doz. $2 25
Disston's—No. 6, 16, 26 & 045 .. 4 25
Triumph 3 50
Forest Clipper 3 0

BLOCKS.

Snatch.
Wooden ..... 60&10%
Steel 50%

Tackle.
Iron Strapped ..... 70&10%
Com. Steel ..... 60&10%

BOARDS.

Stove 40%

Wash.
Globe, single ..... per doz. $3 15
" double ..... " 3 65
Magnolia ..... " 3 85
Crystal Glass ..... " 4 35
Brass King ..... " 4 50
Nickel Plate ..... " 4 15
Enamel King ..... " 4 35

BOBS, PLUMB.

Carpenters'.
No. 2, iron ..... per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead ..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated. " 1 10
No. N30, nickel plat'd " 1 30
No. N31, " " " 1 85

BOLTS

Carriage, Machine, Etc.
Carriage ⅝x6 and sizes smaller and shorter ..... 70&5%
Carriage, sizes larger and longer than ⅝x6 ..... 60%
Machine, ⅝x4 and sizes smaller and shorter, ... 70&10%
Machine, sizes larger and longer than ⅝x⅝x4 ..... 60&5%
Elevator ..... 50-10&5%
Plow ..... 60&10%
Stove ..... 80&10%
Tire ..... 75&5%
Wagon Box Strap 70%

Mortis Door.
Gem, iron 60%
" bronze plated 20%

Barrel.
Cast 60%
Wrought .....
" Bronzed 50%

Flush.
Wrought ..... 50&10%

Spring.
Wrought .....
" Heavy .....

Square.
Cast ..... 50&10%
Wrought .....

BORERS.

Angular.
Miller's Falls ..... per doz. $13 00

Bung.
Doz.
Enterprise Mfg. Co.'s No. 1 .... $14 00
" " " No. 2 ..... 18 50

BOXES.

Mail, No.	1	2	10
Per doz.	$3.50	5.50	17.50

Miter.
New Langdon ..... 15&5%
Stanley's 30%
Seavey's ..... each $1 50

BRACES.

Barber's ..... 50&10@50&10&15%
Fray's Genuine Spofford's 60%
" Nos. 66 to 146 ..... 50%
" No. 0108 ..... $3 50
" No. 0110 ..... 3 75
" No. 08 ..... 2 75
" No. 010 ..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1 per doz. $9 00
" No. 2 " 9 60

Shelf.
Cast Iron, Bronzed 50, 10, 5%
Griffin Wrought Steel 75%
" Folding 70%

BROILERS.

Wire 70%
No. Cwron, Self-Basting, 80

BUCKETS.

Pump Rubber.
Wychoff ..... per gr. $4 75
Cooper ..... " 4 7
Champion ..... " 7 50
Victor ..... " 9 25
Star ..... " 5 00
IXL ..... " 6 75

Well.

Galv'd Qts	10	12	14
Per doz.	$2.90	$3.25	$3.40

Wooden, top ear, plain, per doz 4 00
" " swivel " 5 10

BUCKS, SAW.

Folding ..... per doz. $2 10

BURRS, RIVETING.

Copper Burrs only 15%
Tinners' Iron Burrs only 70%

BUTTS.

Cast Iron ..... 70&5%
Wrought Brass (New List) 30%
Wrought Steel Bright.
Wrought Steel, Japanned.
Nos. 731 and 733 ..... 70%

CALIPERS.

Double ..... 65&5%
Inside and Outside ..... 65&5%
Wing 70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M $3 75

Toe.
Shoenberger ..... per ℔ 5 c
Bessemer ..... " 4½c
American ..... " 7 c
Swedes ..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.

Gallons	20	30	40
Each	$4.25	$5.00	$6.25

Milk.
Holstein.

Nos.	300	301	302
Gals.	5	8	10
Per doz.	$26.00	$27.00	$29.00

Chicago Pattern.

Nos.	105	108	110
Per doz	$20.00	$22.50	$24.00

Iowa Pattern.

Nos.	408	410
Per doz	$24.50	$25.50

New Elgin Pattern.

Nos.	705	708	710
Per doz.	27.00	$29.00	$30.50

Burn Pattern.

Nos.	700	701
Gals	8	10
Price	$2.40	$2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular ..... each $3 50
Diamond, Sling ..... " 6 50
Myers' Imperial ..... " 3 50
" Clover Leaf ..... " 3 65

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing ..... 50&10%
Bed ..... 60&5%
Common Plate.
Brass Wheel ..... 60&10%
Iron and porcelain wheels, new list ..... 60&5%
Philadelphia Plate, new list 70%
Martin's 60%
Payson's ..... 75&10%

CATCHERS, GRASS.

Carroll s No. C ..... per doz. $4.25
Wildermuth's

Nos.	1	2	3
Per doz.	$5.60	$5.75	$6.25

Nos.	4	5	6
Per doz.	$6.75	$9.50	$10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack ..... doz. pairs $5 75
With Covert snaps. " 5 00
With slide ..... " 3 25
Without slide ..... " 2 85

Bright Ox Chains.
⅝ in. $7.25; ¾ in. $8.45 per 100 lbs.

Cable Coil Chain.

Inch	5/16	¼	3/16	⅛
Per 100 lbs.	$10.80	$8.00	$7.00	$6.20

Inch	7/16	⅜	⅜	⅜
Per 100 lbs.	$6.00	$5.90	$5.75	$5.65

Inch	½	1	1½
Per 100 lbs.	$5.55	$5.55	$5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil

Cow Tie Chains.
American 2 toggle ..... 50&5%
" toggle and snap ... 50&5%
" open & closed ring, 50&5%

Halter Chains.
American, new list 33⅓%
German ..... 50&10&5%
Niagara, new list ..... 40&5
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft. ..... per doz. 55c
Heavy Brass, 3 ft. ..... " 90c

Pump Chain.
Galvanized, per 100 lbs. $5.50

Safety Chain.
Brass 60%

Special Steel Loading Chain.

Inch	¼	5/16	7/16
Per 100 lbs.	$16.00	$13.50	$12.50

Stretcher Chains.
5/16 in. $8.50; ⅜ in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's ..... 70&10%

Trace Chains.
Western Standard.
6½— 6-2 ..... per pair 30c
6½— 8-2 ..... " 34c
6½— 8-3 ..... " 33c
6½—10-2 ..... " 38c
7 — 8-2 ..... " 38c
7 —10-2 ..... " 43c
7 —10-1 ..... " 48c
7 —10-0 ..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.

Inch	¼	5/16	⅜
Per 100 lbs.	$6.50	$6.00	$5.50

CHALK, CARPENTERS'.

Blue ..... per gross 75c
Red ..... " 65c
White ..... " 55c
Common White Sch'l Crayon 8c

CHARCOAL

In bags ..... per bag 90c

CHECKS, DOOR.

Blount 33⅓%
Sargent's 33⅓%

CHIMNEY TOPS.

Iwan's Volcano 50%

CHISELS.

Box,

Inches	10	12	14
Round, per doz.	$2.10	$2.25	$2.75
Flat "	2.85	3.60	4.20

Cold.
Good quality, ⅜ in. and larger ..... per ℔ 12c
Smaller size per doz.

Socket, Framing and Firmer.
Barton's 20%

Tanged, Firmer.
With handles ..... 30&5%

Choppers, See Cutters, Meat.

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers ..... per doz. $6 25
Yankee, for Yankee Screw Drivers 5 00

CHURNS.

Anti-Bent Wood, Gal.	5	7	10
Each	$3.90	$4.60	$4.85

Belle, Barrel 65-7½%

Common Dash, Gal.	4	5	6
Per doz.	$7.75	$8.50	$10.50

Union, Gal.	5	7	10
Each	$3.65	$3.90	$4.75

CLAMPS

Adjustable.
Martin's 30%

Carpenters'
Steel Bar 25%

Hose.
Sherman's, brass, ¾ in., per doz. .23c
Double, brass, ¾ in., " 65c

Saw Filers.
Disston's list, $30.00 ..... 30%
Stearn's, No. 0, $3.50; No. 1, $11.50; No. 2, $5.00 doz.
Wentworth's, No. 1 $6.00; No. 2 $7.50

CLAWS, TACK.

Cast, wood hdle ..... per doz. 45@60c
Forged steel, wood hdle $0.80
Solid Steel ..... " 1.60
Giant ..... " .60

CLEANERS.

Drain.
Iwan's Adjustable 55%
Iwan's Stationary ..... 40&5%

Pot.
Wire ..... per doz. $0.55

Side-walk.
Steel ..... per doz. $2.25
XLCR ..... 65&5%

CLEAVERS.

Family.

Griffin, In.	6	7	8
Per doz.	$5.50	$5.75	$6.25

Royal ..... per doz. 2 25

Butchers.
Beattys, Kitchen 40%

CLEVISES.

Malleable ..... 5c ℔

CLIPPERS.

Bolt ..... $1.90@$4.75

CLIPS.

Axle ..... 65&5%

Damper.
Standard ..... per doz. 65c
Troy ..... " 36c

Hame ..... " 17c

CLOTH.

Emery.
Star 50%
B. & A. 50%

Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $2
9 to 12 " " " " 2
2 to 3 incl., Galv.—in full roll ... 3 75
4 and 5 ..... " 4 00
6 ..... " 4 25
7 and 8 ..... " 4 75

Screen Wire.
12 mesh, painted, per 100 sq. ft. 1.35

COCKS AND FAUCETS.

Compression Plain Bibbs 60%
Lever Bibb Cocks 60%
Compression Hose Bibbs. 50-10&5%
Telegraph Faucets (new list) ... 50-5%
Racking Cocks (new list) 60%
Compression Lock C'ks(n'w list) .. 70%
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz. ... $0.85
Milk Can Faucets, per doz. ... $2.60-4.20
Petroleum Faucets 75%

COLLARS, STOVE PIPE.

Inches	5	6	7
Plain Tin ... per gro.	$1.90	$2.40	$2.50
Japanned Tin "	3.00	3.00	4.25
Lacquered Brass "	3.00	3.50	4.25

COMBS, CURRY.

Nos	000	11	15	39	89	108
Per doz.	$0.37	.60	1.90	.90	1.15	.80
Nos	299	320	390	522	620	1400
Per doz.	$1.05	.85	1.35	1.20	.75	1.40

COMPASSES.

Carpenters' 60-10-10%
Pencil—Faber's ..... per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 ℔ ..... per ℔ 41c
1½ ℔ ..... 33c 2 ℔ ..... " 37c
3 ℔ and larger ..... " 34c

CORD.

Picture.
White Wire (new list) 80-10-10%

Sash.
Baltic Braided Flax ..... per ℔
Silver Lake, white 7-32 in. "
" " " 8-32 in. "
Keystone ..... 8-32 in. " 28½c

CORKSCREWS.

Humason & Beckley 33⅓%
Walker's 33⅓%
Williamson's Regular ..... 40&10%
Williamson's Forged Worm 50%

COTTERS, SPRING.

All sizes—new list ..... 90&30%

COUPLINGS, HOSE.

Brass ..... per doz. $
Brass Plated ..... " .35

COVERS, WAGON—See Tents

CRADLES, GRAIN.

Morgan's Grapevine ... per doz. $2

CRAYONS—See Chalk.

CROW BARS.

Pinch or Wedge Point, per 100 lbs. $3.25

CUTTERS.

Glass.
Red Devil 45%
Smith & Hemenway Co. 50%
Woodward 40%
Meat.
Enterprise Nos. 5, 10, 12, 22, 32 and 42 ..... 25%
No. 202, list, $1.50 ea. ..... 40&7½%
Pipe.

Stanwoods... No.	1	2	3
Each	$0.85	$1.50	$4.00

Slaw and Crout.
3-knife Crout ..... per doz. $9 75
1-knife Slaw ..... " 1 65
3-knife " ..... " 2 25
Washer ..... " 7 75

DAMPERS, STOVE PIPE.

Standard ..... 50&10%
American ..... 45&10%

DIES AND STOCKS

Discount ..... 40&5%
King's, Little Giant 33⅓%

DIGGERS.

Post Hole.
Acme ..... per doz. $ 9 25
Atlas ..... " 9 00
Eureka ..... " 7 50
Hercules ..... " 10 25
Iwan's Split Handle .. " 7 50
Iwan's Perfection ..... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's ..... " 17 00
See also Augers—Post Hole.
Dividers, Wing ..... 65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel painted, per doz. $7 98
1⅛ in. " " " 9 50
1⅛ in. 3-panel natural pine, fancy ..... per doz. 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock ..... 60&10%
Blacksmith's Twist 60%
Breast.
Common ..... each, $2 25
Millers Falls ..... " 2 10
Hand
Goodell's Automatic.

Nos.	01	02	3	20
Per doz.	$7.75	$12.50	$12.50	$11 00

Goodell's Single Gear per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's ..... per doz. $16 50
Bit Stock.
Standard List... 60&5%@60%@10%

DRIVERS, SCREW.

Standard ..... 65&10%
Lock Ferrule 60%
Champion 50%
" Pattern 70%
Clark's Interchangeable 30%
Edison 60%
Reed's Lightning ..... 45&5%
Goodell's Spiral ..... 50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral ..... 50&10%
Smith & Hemenway Co. ..... 40&5%

EAVES TROUGH. GALVANIZED.

Territory. L. C. L.
Eastern ..... 70&30%
Central ..... 75&10&2½%
Southern ..... 75&7½%
Western ..... 75&7½%
S. Western 75%
Terms, 2% for cash. Factory shipments generally delivered.
See also conductor pipe and elbows

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.

Inches	5	6	7
Smooth, per doz.	$0.70	$0.75	$1.10
Plan'd "	1.80	2.00	2.65

Corrugated Conductor.
Discount 80%
Corrugated Stove.

Inches	5	6	7
Smooth, per doz.	$0.70	$0.80	$1.30
Pol'd "	1.30	1.40	2.10
Plan'd "	2.00	2.20	3.00

Four-Piece Stove.

Inches	5	6	7
Smooth. per doz.	0.60	$0.65	$0.95
Planished "	1.40	1.70	2.35

EMERY CLOTH—See Cloth.

EMERY, TURKISH.

Size	5-lb. pkgs.	½ kegs,	kegs
No. 60 to 150, per lb.	6c	4c	4c
Flour "	5c	3c	3c

ENAMEL, IRON.

Nubian, ½-pt. cans ..... per doz. 1 65
Peerless 1 25

EXTRACTORS. PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W
Drifting Pick ..... 60, 10&5%
Hooks and—
Brass ..... 50&10%
Iron 70%

FASTENERS, STORM SASH

Schroeder's ..... per doz. 85
Sensible 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta 70%
Disston's ..... 75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior ..... per doz. $4 75
Whiston's Imp ..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel, New List ..... 65&10%
Wood, 4 tines, per doz. $5.00
Coal, Coke, Cottonseed ..... 33⅓&5%
Hay.
2 tine ..... 60&10%
3 " 65%
4 " ..... 65&7½%
Digging 70%
Scoop 33⅓%
Header.
3 tine 65%
4 " 65%
Manure.
4 tine ..... 60&10%
Ore 40%
Spading.

FRAMES.

Hack Saw.
Union ..... per doz. $5 75
Jenning's adj ..... " 7 50
Cast ..... " 2 50

FREEZERS, ICE CREAM.

Arctic.

Qts.	1	2	3	4	6
Each	$1.10	1.30	1.50	1.80	2.30
Qts.	8	10	12	15	
Each	$2.95	3.80	4.50	5.20	

White Mountain.
20 qt., New Platform... each $19 10
25 qt., " " " 22 60
25 qt., Sampson Power . " 43 50
40 qt., " " " 58 25

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont ..... per doz. $3 75
Marking, Mortise, etc. ..... 50&10%
Saw.
Wire.
Disston's 25%

GIMLETS.

Discount ..... 35@40%

GLASS, WINDOW.

First two brackets ..... 90&5%
Above " " 90%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber ..... per lb. 12 c
A White ..... " 15 c
H. S. Amber ..... " 16½c
Liquid.
Army & Navy 40%
Le Page's—
List "A" 37½%
List "B" 33⅓%
List "C" 25%

GOODS.

Bright Wire ..... 65&15%

GREASE, AXLE.

Wood Boxes.
Diamond ..... per gro. 5 50
Frazer's 9 50
Hub Lightning 5 25
Paragon 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross $9 50
3 lb. per gross 25 00
5 lb. per gross 37 00

GRIDDLES.

Soapstone 50%

GRINDSTONES.

Family.

Inches	7	8	9
Per doz.	$8.25	9.00	10.50

Loose.
Per ton ..... $20 00@21 00
Mounted.

Ball Bearing	1	2	3
Each	$3.15	3.00	2.85
Common Bearing	1	2	3
Each	$3.00	2.80	2.65

GUN WADS.
(See Ammunition.)

HAFTS, AWL.

Brad.
Common ..... per doz. $0 19
Peg.
Common ..... " 32
Patent, plain top ..... " 47
" leather top ..... " 52
Sewing.
Common ..... " 22
Patent ..... " 52

HALTERS.

Jute Rope ..... per doz. $0 85
Sisal Rope ..... " 1 85
Web ..... " 1 75
Leather, rope tie ..... " 7 50
" leather tie ..... " 10 00

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs ..... 60&5%
Engineers'.
Plumbs ..... 60&5%
Farriers'.
Plumbs ..... 40&12½%
Machinists'.
Plumbs ..... 60&5%
Nail.
Plumbs ..... 40&7½%
Quaker City ..... per doz. $3 50
Cast ..... " 1 15
Maydole's ..... 30&5%
Riveting.
Plumbs ..... 40&12½%
Shoe.
Cast ..... per doz. 75c
Tack.
All Iron ..... per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid ..... " 1 55
Magnetic 1 2 3
Per doz 70c 80c $1.00
Magazine ..... per doz. $4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs ..... 75&5%
5 lbs. and over ..... 75-10&5%
Masons'.
Single & Double Face ..... 75&5%

HANDLES.

Auger.
Common Assorted ... per doz. $0 38
Peck's Adjustable ... " 2 10
Ives' " ... per set 1 35
Axe 60%
Chisel
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged Firmer, Assorted, 29c; large, 38c per doz.
Applewood Socket, Firmer, Assorted ..... per doz. 24c
Coal Pick ..... 50&10%
Drifting Pick ..... 50&10%
File, assorted 13c; large 18c per doz.
Hammer.
Adze Eye ..... per doz. 40c
Blacksmiths' ..... per doz. 40c@70c
Machinists' ..... " 45c@70c
Hatchet ..... per doz. 40c
Hay and Manure Fork 30%
Hoe and Rake 30%
Ox
Plain ..... per doz. 75c
Varnished ..... " 80c
Screw Driver.
Assorted ..... " 37c
Large ..... " 48c
Shovel and Spade 33⅓%

HANGERS.

Barn Door.
Challenge ..... 60&10%
Peerless ..... 70&10%
Silver Star ..... 60&5%
Storm King ..... 60@5%
World's Best 50%
Wagner's Adjustable ..... 70&10%
Warehouse 60%
Griffin ..... 70&10%
Conductor P
Griffin ..... 70&10%
Iwan's Perfection 50%
Hose Trough.
Baker's ..... per gro. $2 35
Imperial 30%
Wire 33⅓%
Parlor Door.
Acme ..... per set $2 75
Ives' Improved ..... " 2 50
Lane's Standard ..... " 3 50
" New Model ..... " 3 10
Le Roy Noiseless ..... " 4 00
Richards' ..... 40-10&5%

HASPS.

Hinge, Wrought 40
With Staples—See Staples.

HATCHETS.

Crown ..... 50-10&5%
Cast Claw ..... per doz. $1 20@1 45
Cast Shingling ..... " $0 95@1 20
Germantown 40%
Plumbs ..... 33⅓&5%
Underhill's Star Lath ..... 40&10%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1 .... per doz. $ 9 00
" No. 2 .... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets 95c
Parker's 65%
Shepherd's Noiseless, for Wood casing ..... per doz. 1 05
Gate.

Clark's	1	2	3
Hgs & Ltch ... doz.	$2.50	2.90	4.00
Hinges only ... "	1.90	2.20	
Latches only ... "	.70	.75	

Knuckle ..... per doz. prs. $6 00
Leed's ..... " sets 6 75
Superior ..... " prs. 9 50
Spring.
American 30%
Chicago ..... 35&5%
Columbia Dbl. Acting .... 40&10&5%
Gem 25%
Ideal Detachable .... per gro. $11.10
Matchless 30%
New Idea ..... per gro. $8.40
Oxford 30%
Wrought Iron.
New Lists .....
Griffin.
Light Strap Hinges 60%
Heavy Strap Hinges 65%
Light T Hinges 55%
Heavy T Hinges 45%
Extra Heavy T Hinges 60%
Cor. Heavy Strap 70%
Cor. Ex. Heavy T ..... 65&10%
Screw Hook and Strap.
6 to 12 in ..... per 100 lbs. $3 75
14 to 20 in ..... " " 3 65
22 to 36 in ..... " " 3 40
Screw Hook and Eye.
⅝ in ..... per 100 lbs $6 75
½ in ..... " " 7 75
⅜ in ..... " " 9 75

HOES.

Garden ..... 70&10%
Grub.
Extra 70%
Hazel ..... per doz. $5 00
Ladies' and Boys' 75%
Mortar ..... 75&10%
Planter's Eye 62½%
Weed ..... 75&15%

HOLLOW WARE—See Ware

HOOKS.

And Eyes.
Brass ..... 50&10%
Iron ..... 65&10%
Awning ..... per gro. $1
Belt.
Brown s ..... 70&5
Jones' ..... 65&5
Bench.
See Stops, Bench

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's, per doz. 2 50
(See Goods, Bright Wire.)

Bush.
Common Axe Handle. per doz. $7 00

Chain.
Inch... ¼&5/16 ⅜ 7/16 ½
Per 100 $7.60-8.10 9.75 11.50 12 60

Clothes Line.
Japanned.....per doz. 22c@24c
Galvanized..... " 40c

Coat and Hat.
Cast Iron .....per gro. 72c@$1 50
Gem Wire.....70¢

Conductor.
Malleable.....50&10¢@50&10&5¢
Wrought .....40&10¢@50¢

Corn.
Common, unpolished, per doz. $1 35
" polished.... " 1 80
Cut Easy"..... " 2 75

Gat.
See Goods, Bright Wire.

Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75

Hammock.
With Plate.....per doz. 50c
With Screw..... " 45c

Lambrequin, or Drapery, per gro. 21c
Picture .....50¢@50&10¢
Potato and Manure.....70&12½¢
Screw.
Brass.....80&5¢
(See Goods, Bright Wire.)
Seat Spring.....per ℔. 5½c

HOOPS, TUB.

Elastic.....per case of 2 doz. $1.50

HOSE, GARDEN.

				Coupled per ft.
Heron-3ply-¾" guar. press.			55 lbs.	7½c
Crane " " "		75	"	8½c
Falcon " " "		95	"	9½c
Eagle " " "		120	"	10½c
Condor " " "		150	"	11½c
High Test " " "		200	"	12½c

COTTON COV. RUBBER HOSE

High Grade-¾"-guar. press.		400	lbs.	11½c
Special " " "		300	"	9½c
Leader " "		100	"	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz..... $2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro..... $5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro..... $3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's
Nos..... 1 63 200 400
Per doz..... $0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz..... $0.85 1.50 1.25 1.25
Nos.....A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial ..... " 1 00
Pinking ..... " 70
Plane.
Wood Bench.....20&5¢
Sad.
Charcoal .....per doz. $11 00
Common, Polished, per 100 ℔. 4 50
" Nickel plated, " 5 25
Chinese Polishing.....per doz. 7 40
Laundry. No. 1 ..... " 5 75
" No. 2 ..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise...per set 86c
No. 55 J, " ... " 83c
No. 50 T, " ... " 91c
No. 55 T, " ... " 88c
No. 50, Howells..... " 86c
No. 55, " ..... " 90c
Tailors' Sad.....per ℔. 5½c
" Geese ..... " 5½c
Tuyere.
Single Duck Nest.....per doz. $5 25
Double " " ..... " 6 25
Sutton .....each 2 60

JACKS.

Locomotive..... 70¢
Wagon.
Oliver
Nos 0 00
Eann..... $0.60 $0.85

Standard.
Nos..... 1
Each..... $0.60 1.00
Wilcox.
Nos..... 1 2 3
Each.....$0.85 1.20 2.00

KETTLES.

Brass.....15¢
Cauldron .....40&5¢
Copper.....per ℔. 27c
Maslin .....65¢
Sugar .....50¢

KNIVES.

Best Topping.
Clyde, 9-in. Scimiter Blade, dz. $3 85
California.....3 40
Cooper's Hoop.....15¢
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard .....70¢
Adjustable.....15¢
Barton's Carpenters'.....10¢
Folding Handle.....25&5¢
Hay.
American, Sickle Edge..doz $10 50
Canton, Sickle Edge..... " 8 25
Heath's ..... " 8 00
Iwan's Sickle Edge..... " 9 50
Iwan's Impv'd Serrated.. " 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point " 8 50
Hedge.
Challenge ....per doz. $6 00
Disston's..... " 2 75
Mincing.
Common, Single 40
" Double ..... " 50
Streeter, 4 Blade..... " 1 30
" 6 Blade..... 2 00
Putty.
Common..... " 60@1 00
Lander's..... per doz. $1 40@1 75
Scraping.
Beech Handle.....75@1 00
Lander's.....5 25@6 00

KNOBS.

Door.
Mineral .....per doz. $0 73
Porcelain ..... " 83
Jet..... " 83

LADDERS.

Common Long.
Per ft .....9c@14c
Extension.
Per ft 12c
Step.
Common, per ft.....6½c
" with Shelf, add 10c.
Keystone.....15c
Triumph, per ft 20c

LANTERNS.

Bull's Eye Police.
3-in. Flash Light.....per doz. $6 00
2¾-in. Regular..... " 4 00
3-in. Regular..... " 5 00
Tubular.
Buhl.....net prices

LEADERS, CATTLE.

Nos 1 2 3
Per doz.....$0 55 $0 70 $2 75

LEATHER, LACE.

Cut.....33½¢
Glass.
Ex. Quality.....per sq. ft. 27c

LEATHERS, PUMP.

Valve and Plunger .....10¢

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
" Nickeled. " 5 00
Transom.
Payson's.....80¢

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos..... 4 6 7 8 9
Per gross $1 50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Masons', in 100-ft. hanks..doz... 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. " ..... " 1 15
60-ft. Sisal ..... " 1 40
72-ft. " ..... " 2 15
50-ft. Cotton ..... " 1 15
50-ft. Braided Cotton " 25

LINING, STOVE.

In Bricks.....per crate 42c

MACHINES.

Boring.	Without Augers	With Augers
Angular.....per doz.	3 00	4 40
Upright.... "	2 60	4 00

Leather Riveting.
Chicago, Pomeroy....per doz. $9 00
Excelsior ..... " 2 00
Handy ..... " 2 00
Little Giant..... " 3 00
Pony, Pomeroy..... " 7 20
Washing
Winner.....per doz. 54 00
Keystone ..... " 54 00
U. S. Steel..... " 60 00
Advance, f.o.b. Chic'go " 24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small ...per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 1 75
" Lignumvitæ .. " 2 85
Square Hickory..... " 1 75
" Lignumvitæ.. " 2 40
Tinners'.
Applewood ..... " 1 70
Hickory..... " 75@1 15
Hickory Sheet Iron.. " 1 30

MATS.

Door.
National Rigid.....50, 10&5¢
Acme Steel Flexible.....33⅓¢
Stove.
No. 2. .....per gross. $3.25
No. 1. ..... " 3.50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1.10
No. 2 Asbestos Toasters, with ring.....per doz. .60

MATTOCKS.

Plumbs.....70¢
Extra .....60¢

MAULS.

Iron. lbs.	10	13	16	1
Per doz.	$4.00	4.50	5.25	5.60
Wood face, lbs.	10	12	14	
Per doz	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10¢

MEASURES.

	½ pk.	1 pk.	bu
Galvanized. per dz.	$2.25	$3.00	$3.85
Japanned... "	1.75	2.45	3.15

MICA.

First Quality.....15¢
Second Quality.....20¢

MILLS, COFFEE.

Enterprise .....25¢
Parker.....40 12½&2½¢
Arcade .....40-12½&2½¢

MITRE BOXES.

See boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen...$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Ball-Bearing.
Inches..... 14 16 18 20
Each $6.25 6.75 7.25 8.00
Cheap Grades.
Inches..... 12 14 16 18
Each $2.25 2.25 2.35 2.50
Clipper .....50, 10&10¢
Yale.
Inches..... 4 16 18 20
Each.....$3.50 3.75 4.00 4.25
Philadelphia.
All Styles Except A & E 60, 10&10¢
Style A.....50&10¢
Style E, High Wheel.....60, 10&10¢
Drexels.....40¢
All Day.....Net Pric

NAILS.

Cut Steel.....rates, $2 50
Cut Iron.....2 60
Wire.
Small Lots.....$2 25
Carload " 2 25
Cement Coated..... 2 10
Horse Shoe.
Ausable .....55&5¢
Capewell .....15¢
Perfect .....55&5¢
Putnam.....20-5¢
Star.....35&5¢
Clover Leaf.....per lb. net, 10½c
Picture.
Brass Heads.....25¢
Brads.....85¢
Furniture 20

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized before Weav'g. ..80&10¢
" After Weaving ....80&5¢
Cut Pieces.....65&5¢

NIPPERS.

End Cutting.
Stubb's Pattern. Ins. 5½ 6
Per dozen $4.00 $4.25
End and Diagonal Cutting.
Swedish Side.....75¢
Utica Drop Forge & Tool Co...60¢
Hoof.
Heller's .....40&10¢
V. & B.....55-5¢

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 15
Magic..... " 3 50
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.

In.	¼	5/16	⅜	7/16	½	⅝
℔.	9½c	8c	6½c	5½c	5½c	5c	4½c

Square Tapped.

In.	¼	5/16	⅜	7/16	½	⅝	¾
℔.	12½c	10½c	8c	7½c	6½c	6½c	6c

For 5 lb. boxes add ½c per ℔. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60¢
Zinc..... .....60¢
Engineers'
Cannon.....55¢
Tin.....per doz. $2.00@$2.25
Machine.
Common .....per doz. $0 50
Copper Plated Steel.. " 85
Malleable Iron.....60, 10&5¢
Jappaned.....65@75c

OPENERS.

Box.

Inches.....	10	12	14
Flat...per doz	$2.25	2.60	4.15
Round "	2.10	2.25	2.75

Can.
Delmonico.....per doz. $1 20
Never Slip..... " 0 65
rate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. $11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought .....70&5¢
Champion .....50¢
Eureka.....40, 10&5¢
Yale .....60&5¢

PAILS.

Cream.
14-qt., without Ga....per doz. $2 50
20-qt., " " .... " 3 00
20-qt., with Gauge.... " 3 50
Sap.
10-qt., Galvanized . per 100.. $13 00
12-qt. " " .. 14 50
14-qt. " " .. 16 25
16-qt. " " .. 17 75
10-qt., IC Tin..... " .. 10 25
12-qt " " .. 11 75
14-qt. " " .. 13 00
10-qt., IX Tin..... " 12 75
12-qt. " " .. 16 00
14-qt. " " .. 17 00
Stock

Galvd. qts.	14	16	18	200
Per doz.....	$3.75	4.00	4.75	5.25

Water.

Galvanized, qts	10	12	14
Per doz	$1 95	2.20	2.45

Wood.
Cable, 2-Hoop..... .per doz. $1 70
" 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop..... " 1 60
" 3-Hoop..... " 1 80

PANS.

Dripping.....60&5¢
Fry.
Common.....75&10¢
Acme .....70¢
Roasting.
Paxton.
Nos..... 1 2 3 4
Per doz.. $4.75 $5.75 $6.50 $7.50
Neverburn.. 4.00 4.50 5.50 6.
Savory No. 200 .....per doz 8.

PAPER.

Building.
Plain .....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin.....pr roll 40
No. 30, Red Rosin ..... " 55
Sand and Emery.
Star.....low list 50¢
B. & A.....50¢
Wrapping
Drab Floor.....per ℔.
Rag.....

PARERS

Apple.
Bay State.....per doz. $13 00
Turntable ..... " 00
White Mountain .... " 4 75
Reading..... " 6 50

Potato.
Goodsell's Saratoga 10½ in. doz. 6 50
" " 5 in.. " 5 50

PICKS.

Adze Eye Ore .....70¢
Drifting and Poll Picks.....70¢
Plumbs Railroad .....70¢
Surface.....70¢

PINCERS.

Carpenters', cast steel.

In.	6	8	10	12
Per doz.	$1 80	$2 40	$2 80	$3 50

Blacksmith's .....45¢
Heller's .....40¢

PINS.

Clothes.
Common.....per box of 5 gro. $0 52
Hoyt's..... " " 31
U. S..... " " 70

Picket.
Fluted 15 in.....per doz. $0 70
" 21 in..... " 1 60
Spiral 1 90

PIPE.

Conductor.
Territory.
Eastern.....70¢
Central.....65&10¢
Southern.....65¢
Western.....65¢
Southwestern..... 50-25&2½¢

Lead.
Full coils.....per ℔. 7½c
Cut " ..... " 7½c

Stove.

Acme—In.	5	6	7
Smooth, per jt..	8½c	9½c	10½c
Planished " ..	32 c	33 c	43c
Peerless—Smooth.	7½c	8 c	9½c
Polished	14½c	15½c	18c
Plan'hed	28 c	31 c	35½c
Made-up—In.	5	6	7
Smooth	7½c	8c	9½c

7 to 6 in. Smooth Tapers, pr jt..13c
6 in. Smooth T's..... " ..27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	5½&6"	7"	7 to 6"
	—Cents—			
Battle Ax Blue Smooth Steel.	6	6½	7½	8
Double Lock Peerless Blue Smooth Steel.	6½	7½	8½	8½
Can't Slip Blue Smooth Steel.	6½	7½	8½	8½
Duplex Polish'd Blue Smooth Steel.....	8½	9½	10½	10½
Yale Russia Fin	15½	16½	17½	17½
Plan'h'd Duplex	29½	30½	37	38
Galvano, Galvanized Iron..	15	16	17	17½

If wanted made up, add per joint for grooved, 1c; riveted, 1½c. Crating made-up pipe extra.

Wrought Iron Gas Pipe
⅛O½-in., black.....discount, 60%
⅛O½-in. ..... " 60,10&5%
¾-in. to 6-in.. black... " 70%
7 " 12 " .. " 62½%
O¾ galvanized " 42%
O½ " " 50%
¾ " 6 " " 57½%
7 " 12 " " 45%

PLANES.

Sargent Iron Bench.....60¢
Stanley Iron Bench.....35&5%

PLANTERS.

Corn.
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Segment..... " .. 9 00

Potato.
Acme.....per doz..$6 25
Challenge..... " ..11 00
Pingree..... " .. 2 25
Eureka ..... " .. 6 25

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—In. 4½ 6 8 10
Per doz.....$2.75 $3.35 $4.15 $5.15

Button's Pattern.
In. 4½ 6 8 10
Per doz.....$2.15 $2.40 $2.90 $3.75

Cutting.
Bernard's.....30¢
Lodi.....50¢

End and Diagonal Cutting.
Swedish Side .....70¢
Utica Drop Forge & Tool Co....50¢

Fencing.
Farmers' Choice....per doz ..$8 00
Russell's..... " .. 8 25

Flat and Round Nose.
Bernard's.....30¢
German .....65¢
Lodi.....50¢
Paragon.....50¢

Gas—In. 6 8 10 12
Per doz...$2.35 $3.00 $4.00 $5.00

Tinner's.
Hollow.....40¢
Solid..... each..5½c

PLUMBS AND LEVELS.

Common.....60&10&10¢
Cook's.....40¢
Davis' Iron.....25¢
Davis' Inclinometer.....15¢

POINTS.

Drive Well Points.....75&5¢

POKERS—STOVE.

Wr't Steel, str't or bent, pr doz.$0.55
Wr't Steel, wood hand'l " " .80
Nickel pl'td, coil hdl's.. " " .65

POKES—ANIMAL.

Cracker Jack, wr't steel, per doz.....$4.50

POLISH.

Metal.
Pride of the Bar.....$1.60
Putz Cream.

Pts.	1-6	½	¾
Per doz.....	$0.80	$1.10	$1.65

Pts	1	2	8
Per doz	$3 75	$4.50	$7.50	$12.50

White Silk half pints, per doz.$2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine

Pts.	1-6	½	1	2
Per doz.....	$0.70	$1.35	$2.25	$3.00

George William Hoffman.
U. S. Metal Polish Paste, 3 oz. boxes, per doz., 50c; pr. gro ..$4.55
½-lb. boxes, per doz..... 1.20
1-lb. boxes, per doz..... 2.25
U. S. Liquid, 8 oz. cans, per doz., $1.25; per gro.....12.00
Barkeepers' Friend Metal Polish, per doz., $1.75; per gro..18.00

Shoe.
M. D. C.....per doz. 35c@50c
F. C. O..... " 40c
T. M..... " 55c@$1.75
Imperial.....per gr.....$5.00

Stove.
Black Eagle, 1 ℔ cans. pr gr..$15.00
Black Silk—
5 ℔. pail.....$0 70
Paste, 5 oz. cans....per doz. 75
Paste, ½ lb. cans.... " 1 05
Liquid, ½ pint cans..per doz $1 00
Liquid, 6 oz. cans... " 75
Steel Range Gloss.... " 1 75
Blackene, 1 ℔ cans....pr gro. 13 00
Black Jack, ½ ℔ cans.. " 9 25
Dixon's Carb. of Iron.. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1 qt. per dz, ..$ 95
Square, 1½ qt..... " 1 10
Square, 2 qt..... " 1 35
2 qt. Reversible..... " 1 60

POTS, FIRE.

Bernz.....each $3 85
Clayton & Lambert's, ea..$4 75@6 25
Gate City.....each 6 25
Gem.....ea..$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co....25¢
Henis.....per doz. $1 85

PRIMERS.

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10¢
Water's Improved..... " 80¢

PULLERS.

Cork.
Daisy.....each $3 10
Phoenix..... " 1 40
Quick and Easy..... " 2 70

Nail.
Giant.....per doz..$10 50
Giant Pattern..... " .. 6 00
Jumbo ..... " .. 9 00
—Gian *Tackt*..... " .. 40

PULLEYS.

Awning—Jap'd.....60¢
Clothes Line.....50&10¢
Hay Fork.
Iron Wheel, 5 in.....per doz. $1 75
Wood Wheel, 6 in.... " 1 75
Wood Wheel, 6 in., pass knot..... " 2 15
Hot House—Jap'd .....50&10¢
Screw..... " .....60¢
Side ..... " .....50&10¢
Sash.
Commo.....per doz $0
" n Sense, 2 in .. "
E mpir Pattern. 2 in.. "
Ideal..e..... "
..... "

PUMPS

Pitcher Spout.

Nos.	1	2	3	4
Each	$1.10	1.23	1.40	1.85

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
" copper ..... " 6 75
Daisy..... " 9 00
Little Giant.....each 2 25

PUNCHES.

Conductors'.
No. 22.....per doz. $2 25
Machine.....per ℔. 19
Saddlers'.
Common.....per doz. 60c@70c
Good..... " 73c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 ℔s. 2 35

RAIL.

Barn Door.
Crescent T..... 4½c
Double Flange..... 2½c
Matchless, 1 in..... 3c
Matchless, 1½ in..... 3½c
Storm King..... 4c
World's Best 7c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron... " 8½c

RAKES.

Coal or Wood.....per doz. $5.20
Garden.
Steel.....70&10¢
Steel, bow.....70&10¢
Malleable Iron, heavy.....70&5¢
Hay.
Wood.....$1.50@$3 00
Lawn—Wood.
XXX .....per doz. 3 00
Automatic ..... " 5 25
Lawn Queen..... " 3 00
Jumbo, 36 teeth..... " 5 50

RASPS—See Files.

RAZORS.

Bo-ras-ic .....50¢
Red Devil.....50¢
Tree Brand.....50¢

REGISTERS.

List December 5, 1904.
Black and White Japanned.....66⅔¢
Nickel Plated.....66⅔¢
Electroplated, Brass, Bronze or Copper.....66⅔¢

RINGS

Bull.

Copper.....	2½ in	3 in.
Per doz.....	$1.40	$1.80

Rea's Impro'd Self Piercing

copper, pr d'z.	2.00	
Steel per doz..	.85	.95
Nickel Plated	1.35	...

and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... " 50
Brown's Ringers..... " 80
Champion Ringers... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes..... " 47
Major Rings ..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers... 80
Fruit Jar.
White.....per ℔ 30c
Key.
Split, round.....per doz. 17c
Split, square..... " 33c
Ball, Round..... " 33c

RIVETS.

and Burrs.
Copper Belt .....20¢
Coppered Iron .....60&10&5¢
Tinners' .....60&10¢
Hame .....per ℔. $0 10
Slotted Clinch.....per doz. 40c@45c
Tubular.
Nos. 1 and 2 assorted sizes, doz. 45c

RIVET SETS.

See Sets.

ROPE.

Cotton.
⅜, 5-16-in. Com. on reels..per ℔. 11½c
⅜, 5-16-in. Com. in coils .. " 12c
⅜, 5-16 Imperial in coils . " 21c
Sisal.
1st quality.....12 c
Hardware Grade, rates. per ℔. 10 c
Pure Manila.
1st quality..... " 15½c
Hardware Grade, rates. " 14½c

RULES

Boxwood.....60¢
Ivory .....

SASH WEIGHTS

See Weights

SAWS.

Back.
Disston's .....25¢
Jackson's.....25¢
Butchers'.
Disston's.....30¢
Circular.
Disston's.....50¢
Hiles'.....50&10¢
Compass.
Common.....per doz. $1.35@$1.60
Disston's.....25¢
Cross-Cut.
Disston's.....45¢
Dehorning.
Disston's..... " 5 75
Hack.
Disston's.....25¢
Keystone.....30¢
Hand and Rip.
Brown's .....30¢
Disston's No. 7.....30¢
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list) ....25¢
Keystone.....30¢
Enterprise, hand.....per doz.$5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25¢
Kitchen.
Sterling.....25¢
One Man .....50¢
Panel.
Brown's.....30¢
Disston's No. 7.....30¢
Disston's No. D100.....25¢
Pruning.
Brown's.....25¢
Disston's.....25¢
Wood.
Common.....per doz. $4 50
Clover Leaf..... " 6 50

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 35
" painted.... " 1 70

SCALES.

Counter.
Pelouze..... .....40&10¢
Platform.
Osgood.....50¢

SCOOPS.

Grain.
½ Bu. "Hercules,"..per doz. $13 70
1 " " 15 00

SCRAPERS.

Box.
Triangular..... 4 00
Cabinet.
Cast Steel..... " 60c@75c
Road.

Cubic ft.	7	5	3
Without runners, ea.	$4.00	3.75	3.50
With runners.... "	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in,.....	1	1½	1¾
	$3.50	$4.00	$4.75

Wood, white maple..per doz. $3 50
Hand—Wood.....10¢
Hand Rail.....80&10¢
Jack .....70&10&5¢
Lag or Coach—all sizes, gimlet pointed.....75&5¢
Screw—Centennial.

Nos.	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5¢
R. H. Blued.....85¢
F. H. Jap'd.....82½¢
F. H. Brass.....85¢
R. H. Brass.....80¢
R. H. Nickel Plated.....75-10¢

SCYTHES.

Clipper, grain.....per doz. $956
Clipper, grass..... " 6 27
Clover Leaf Dutchman "
Honest Dutchman..... "
BeVe B..... 780

SHAVING SETS.

Smith & Hemenway.....60¢

SETS.

Nail.
Round, common.....per doz. $0 33
Square, " ..... " 42
Octagon " ..... " 33
No. 5 Square,..... " 75
Cup Point, knurled pr. doz.....75

Steel.
Farmers'.....per doz. $1 20
Tinners'.....50&10¢

Saw.
Aiken's Pattern.....per doz. $3 50
Common Lever..... " 1 20
Disston's Monarch... " 6 50
" X Cut..... " 12 00
German ..... " 1 05
Morrill's Old Style... " 5 00
" Pattern.... " 3 25
Leach's..... " 80
Nash's Hand..... " 3 15
" X Cut..... " 4 20
Stillman's Lever..... " 1 30
" X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz. $1 60
Smith & Hemenway.....20¢

SHAVES, SPOKE.

Iron.....per doz. $1.10@$1.85
Wood..... " 2.75@ 4.75
Bailey's.....50&5¢
Goodell's.....15¢

SHEARS

Pruning.
Buckeye, No. 1.....per doz. $5 75
" No. 2..... " 7 40
California Pat.. 9 in.. " 3 20
" " 10 in.. " 4 00
Draw Cut, No. 3..... " 13 75
" " No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 $2.10 $2.96 $2.80
Star.....per doz. $4.00

Sheep—No. BBA.
Inches..... 6 6½ 7
Reg. Grip..... $11.25 $11.50 $12.00
Nar. Grip, doz. 11.00 11.25 12.25

Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 $0.42 $0.70

Hatfield's.
Per set..... .75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union..... per doz. $6.75

SHIELDS.

Expansion Bolt Shields.....50&10¢

SHOES.

Conductor.....60&10¢

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No. 2 Wopdford .....per doz. $5 50
No 122. ..... " 6 00
Ames' new list.....Discount 12½¢

Per Doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye .... " " " 10 00
Mohawk.... " " 9 00

Drain.
Iwan's Perfection.....50¢

Railroad, Etc.
Black Diamond.....per doz $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ame's new list.....Discount 12½¢

Snow.
Per doz.....$1.65@$9.00

Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10¢
Enameled, White.....50&10¢

Wrought Steel.
Painted, new list.....40-10&5¢

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓¢
German Pattern.....30&5¢
Judd's Pattern.....50¢

SNATHS.

Double Ring, Bush.....per doz. $5 25
Patent Loop " .... " 4 75
" " Grass..... " 4 50

SNIPS, TINNERS'.

Wiss.....40¢
National.....40&10¢

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.... 30c 35c 40 45c

Reliance.
Per doz.....light $1.25; heavy $2.50

Star.
Per doz..... light 90c; heavy $1.35
Torrey's.....per doz. $1.35
Warner's No..... 11 13
Per doz..... 75c $1.35

SQUARES.

Steel and Iron.....70¢
(Add for lumg, $2.50 per doz., net)

Mitre.

Try.

Try and Bevel

Try and Miter.
Fox's.....per doz. $5.75
Winterbottom's .....70¢

SQUEEZERS, LEMON.

Common Wood.....per doz $0 70
Porcelain Lined, Wood. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, p rc 'n bowl " 1 9
" glass bowl.. " 2 35
Little Giant, tin'd iron. " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated.... " 4 50

STAPLES.

Blind.
Barbed.....per ℔ 9¼@9¾c

Butter Tub..... " 8@8½

Fence—less than carload.
Polished.....per 100 ℔ $2 30
Galvanized ..... " 2 60

Netting.
Galvanized.....per 100 ℔ 4 00

Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10¢
Extra heavy.....75&10¢

STEELYARD.

Discount 25¢.

STONES.

Axe.
Hindostan.....per ℔ 5½@7c
More Grit..... " 9½c
Washita..... " 17 c

Emery..... 60¢@60&5¢

Oil—Mounted.
Arkansas Hard.....per doz. $23 00
Arkansas Soft..... " 15 50
Hindostan .....per ℔ 6½@6¾

Oil—Unmounted.
Arkansas Hard.....per ℔ $3 05
Arkansas Soft..... " 1 10
Lilly White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita ..... " 26

Scythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille..... " 7 00
Quinnebog..... " 5 00
Red End..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated.. " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards.

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz. prs. $1 85

Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Exelsior ..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50

Wire.
N. S. Elwood's..... " 6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety ..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per ℔ 07
Wrought Steel.....per gro. $4 50

TACKS.

American Cut.....90&15¢
American Wire.....85&20¢
Bill Posters Cut.....90&20¢
Blued Carpet.....90&10¢
Tinned Carpet.....90&10¢
Gimp.....90&10¢
Upholsters' Cut .....90&20¢
Upholsters Wire.....90&10¢
Double Pointed.....90¢
Copper.....per ℔ 32c
Canvas Nails.....75&5¢
Clout Nails .....75&10¢
Hungarian Nails.....80¢

TAPES, MEASURING.

Asses' Skin.....40&10¢
Bend Leather.....20¢
Patent Leather.....20¢
Lufkin's Steel.....25¢
Lufkin's Metallic.....30¢

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $3.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5¢
Other kinds.....70¢

Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40¢

Minature.
Smith & Hemenway.....25¢

TRAPS.

Fly.
Balloon.....per doz. $1 15
Harper's..... " 1 25

Game.
Newhouse.....40&10¢
New Victor.....70&10¢

Mole.
Reddick's.....per doz. $6 00

Mouse and Rat.
Wood Choker...per doz. holes $0 18
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation.. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....33⅓¢
Brade's.....15&5¢
Disston's.....30¢
Rose's.....25¢

Plasterers.
Clover Leaf.....40¢
Disston's.....25¢
W. & McP.....25¢

TRUCKS.

Bag.....each $2 75
Handy..... " 1 85
Warehouse.....50&10¢
No..... 1 2 3
Half Ironed.... $3.00 $3.85 $5.50
Full Ironed.... 3.45 4.50 6.45

TUBS, WASH.

Standard, Wood				Ex.
Nos.....	3	2	1	large
Per doz....	$5.00	$6.00	$7.00	$ 9.50

Dowell.
Per doz.... 5.35 6.35 7.00 9.50

Cedar.
Per doz.... 6.10 7.10 7.90 10 80

Indurated.
Per doz.... 8.55 9.45 10.80 13.50

Galvanized.
No..... 1 2 3
Per doz..... $6.00 $6.75 $7.75

TWINE.

Per ℔
3-ply Cotton Wrapping.....25c
4 " " " 25c
4 " " Extra Wrapping.....27c
4 " " " Hvy. Wrapping..25c
4 " " Wrapping on tubes...27c
3 " " " " cones...25c
4 " " " " " ...25c
India Hemp, ¼-lb. balls.....19c
" " ½-lb. " 18c
" " ¾-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply " ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-℔. balls.....9½c

Seine
Nos..... 9 12 15+
Soft.....per ℔ 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " 23c
3-ply "B" in hanks.....18c
4 " "B" " 18c
3 " "A" 27c
3 " Silver Finish, in hanks....37c

Fodder or Lath.
130 strand 6½c
0 20 strand.....7

VISES.

Phoenix.....30¢
Cheney's .....30¢
Parker's Oval Slide.....50, 10&3½¢
Phoenix Oval Slide,
In. 2½ 3 3½ 4½
Ea. $1 25 $1 50 $1 85 $2 75
Parker's Parallel.....15&20¢
Parker's Victor.....15¢
Parker's Combination.....75¢
Solid Box..... ....40&5¢
Adam's Mechanics'.....each 2 50
Williamson Universal .....60¢

WARE.

Stove Hollow Ware.
Plain or Unground.....50&10¢
Ground Ware.....40&10¢
Enameled Ware..... .....40¢

Country Hollow Ware, per 100 lbs $3.00

White Enameled Ware.
Maslin Kettles .....65&5¢

Covered Ware, Tin'd and Turn'd 35-10¢
Enameled.....45&10¢

Glue Pots, Tinned.....30¢
Enameled.....35¢

Enameled.
Cherry Blossom and Chrysolite.50¢

WASH BOARDS—See Boards.

WASHERS.

Standard O. G. cast iron...per ℔. 2½c
Wrought iron in bulk per ℔.:
In. ½ ⅝ ¾ ⅞ 1 1¼
9c 6½c 5c 4½c 4½c 4½c 5½c
Wrought steel in 5 ℔. boxes, per ℔.
In. ½ ⅝ ¾ ⅞ 1 1¼
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz....35
Galling .....per ℔ 10¾
Saw ..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 50

WEIGHTS.

Hitching .....per ℔ 2½c
Sash—F.O.B. Chicago...pr ton $27 50

WHEEL BARROWS.

Common Railroad....per doz..$15 50
Heavy " .... " .. 20 00
Panama Steel Tray " .. 35 00
Klondike " " .. 23 50
No. C4 Tubular " 43 Bryan..each 4 60
No. C5 " " 45 " " 5 25

WHEELS.

Corundum .....70&10&5¢
Emery .....75&5¢
Well In. 8 10 12 14
Per doz.....$2.10 $2.50 $3.15 $5.00

WIRE.

Barbed Painted. Galv'd.
Carloads..per 100 lbs..$2.60 $2.90
Less than car " .. 2.65 2.95

Brass.
In coils.....20¢
In 1 ℔ spools, new list.....50¢

Broom—Tinned.....60&10&10&10¢

Cable—Same price as Barbed Wire.

Copper.
In coils.....20&10¢ 33⅓¢
1 ℔ spools, new list ... 50&10¢

Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2.30
Nos. 6 to 9, Galvl'd... " 2.60

Hair—New list.....50¢

Market.
Bright, full bdles.....70&5¢
Bright, broken bdles .....70¢
Coppered, full bdles.....70¢
Coppered, broken bdles.....65&10¢
Tinned, full bdles.....70&5¢
Tinned, broken bdles.....65&10¢

Picture—In coils.....80¢@80&10¢
In 5 ℔. spools. .....per ℔..26c

Plain—Small lots.....$2.10
Car lots 2.05
Small spools 5c per hundred higher.

WRENCHES.

Acme Standard.....60¢
Alligator No. 1.....85c net
Always Ready.....50¢
Coe's Standard.....40&10&5¢
Agricultural.....70&10¢
Ellis Adjustable.....25¢
Malleable "S".....per ℔. 08c
Malleable..... " 08c
Stillson Pipe.....70¢
Trimo " .....65&10¢

WRINGERS.

No. 22, Guarantee....per doz.$32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle ..... " 31 50
No. 500, Royal ..... " 32 50
No. 350, Universal.... " 28 00
No. 300, Novelty..... " 26 00
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Peters Cartridge Co., Cincinnati, O
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Boilers—Steam
Boynton Furnace Co., Chicago, Ill

Bolts
Columbus Bolt Wks., Columbus, O
Star Expansion Bolt Co. New York, N.Y

Boxes—Hardware
Green, A. H., New York

Brass and Copper
Hungerford, U. T., Brass & Copper Co. New York, N. Y

Cans
Stuber & Kuck, Peoria, Ill.

Carpenter Benches
Grand Rapids Hand Screw Co., Grand Rapids, Mich

Carpenters' Tools
Davis & Cook, Watertown, N. Y
Duby & Shinn Mfg. Co., Branchport Station, Long Branch, N.J
Griffin Mfg. Co., Erie, Pa
North Bros. Mfg. Co., Philadelphia, Pa

Carriage Forgings
Columbus Bolt Works, Columbus, O

Ceilings
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley-Voshardt Co., Chicago, Ill
Keighley Met. Ceiling Co. Pittsburg, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Wheeling Corrugat'g Co., Wheeling, W.Va

Cement—Plumbers
Obermayer Co., S., Cincinnati, O

Cement—Roofing
Conners, Wm. Paint Mfg. Co. Troy, N.Y

Chains
Bridgeport Chain Co., Bridgeport, Ct

Chains—Jack and Safety
Hungerford, U. T. Brass & Copper Co., New York

Chimney Tops
Iwan Bros., Streator, Ill
Kramer Bros. Fdy. Co., Dayton, O

Clips—Carriage Trimmer's
U. S. Clothes Pin Co., Montpelier, Vt

Clothes Dryers
Hill Dryer Co., Worcester, Mass
Mannen & Esterly, Cleveland, O
Martcross Co., Chicago

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Chappell Furnace Co., Morenci, Mich

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Pullman Mfg. Co., Rochester, N.Y

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Pierce & Laux, Burlington, Iowa

Conductor Hangers
Berger Bros. Co., Philadelphia, Pa

Conductor Pipe
Berger Mfg. Co., Canton, O
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Clark, Quien & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
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La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Reeves Mfg. Co., Canal Dover, O
Schoedinger, F. O., Columbus, Ohio
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Cookers—Steam
O-hi-o Cooker Co., Toledo, O

Copper and Brass
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Corn Cribs
Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices
Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
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Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Cornice Brakes
Bertsch & Co., Cambridge City, Ind
Dreis & Krump Mfg. Co., Chicago
Niagara Machine & Tool Wks., Buffalo, N.Y

Cut Offs—Rain Water
Cooney & Geiger, Indianapolis, Ind
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis

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Howes, S. M., Co., Boston, Mass
Sayre Stamping Co., Sayre, Pa

Dictionaries
Ogilvie, Geo. W., Chicago, Ill

Eaves Trough
Canton Mfg. Co., Canton, O
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Wheeling Corrugating Co., Wheeling, W. Va

Elbows
Diener Mfg. Co., Geo. W., Chicago

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Canton Mfg. Co., Canton, O
Dieckmann, F. Cincinnati, O
Milwaukee Corrugating Co., Milwaukee, Wis.
Eller Mfg. Co., Canton O
Reeves Mfg. Co., Canal Dover, O
Wheeling Corrugating Co., Wheeling, W. Va

Elbows—Stove Pipe
Diener, Geo. W. Mfg. Co., Chicago
Reeves Mfg. Co., Canal Dover,

Electro Plating Outfits
Hanson & Van Winkle Co., Chicago, Ill

Elevators
Kimball Bros. Co., Council Bluffs, Ia

Enameled Ware
Lalance & Grosjean Mfg. Co., Chicago
Lisk Mfg. Co., Canandaigua, N. Y
Paxton & Gallagher Co., Omaha, Neb
Star Enameling and Stamping Co., Pittsburgh, Pa

Fencing—Wire
Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Files
Carver File Wks., Philadelphia, Pa
Disston Henry & Sons, Philadelphia, Pa

Firearms
Remington Arms Co., New York, N.Y
Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Firearms—Accessories
Remington Arms Co., New York, N. Y
Stevens, J. Arms and Tool Co., Chicopee Falls, Mass

Forming Rolls
Bertsch & Co., Cambridge City, Ind
Niagara Mch. & Tool Wks., Buffalo, N.Y

Foundry Supplies
Obermayer, S. Co., Cincinnati, O
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Furnaces—Gas
Blickelhaupt Skylight Works, New York
Mannen & Esterly Co., Cleveland, O

Furnaces—Hot Air
Beckwith, Estate, P. D. Dowagiac, Mich
Bonnot Co. Canton, O
Boynton Furn. Co., Chicago
Cox, Abram, Stove Co., Philadelphia, Pa
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg Co., St. Louis
Henry & Scheibie Co., Cleveland, O
Hess, Snyder Co., Massillon, O
Keith Furnace Co., Des Moines, Ia
Kelsey Heating Co., Syracuse, N. Y
Lennox Furnace Co., Marshalltown, Ia
Mannen & Esterly Co., Cleveland, O
May & Fiebeger Akron, O
Meyer Furnace Co., Peoria, Ill
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Peck-Hammond Co., Cincinnati, O
Raft, Walter S. & Co., Chicago
Robinson Furnace Co., Chicago
Schwab, R. J. & Sons Co., Milwaukee, Wis
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
Youngstown Furn. & Supply Co., Youngstown O
Wise Furnace Co., Akron, O

Furnaces—Tinners'
Bickelhaupt Skylight Works New York
Burgess Soldering Furnace Co., Columbus, O
Clayton & Lambert Mfg. Co., Detroit
Diener, Geo. W., Mfg. Co. Chicago
Turner Brass Works. Chicago
Yost Mfg. Co., G. W., Moshannesburg, Pa

Furnace Pipe and Fittings
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Keith Furnace Co., Des Moines, Ia
Michigan Safety Furnace Pipe Co., Detroit, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Robinson Furnace Co., Chicago, Ill

Furnace Rings
Walworth Run Fdy. Co., Cleveland, O

Gas Lamps
Manhattan Screw & Stpg. Co., New York, N. Y

Generators—Low Voltage
Hanson & Van Winkle Co., Newark, N.J

Glass
Powers & Williams, Streator, Ill

Hand Screws
Grand Rapids Hand Screw Co., Grand Rapids, Mich

Hand Punching Machines
American Lock Nut Co., Oregon, Ill

Hangers—Door
Richards Mfg. Co., Aurora, Ill
Safety Door Hanger Co., Ashland, O

Hangers—Eaves Trough
Schoedinger, F. O., Columbus, O

Hangers—Garment
Pullman Mfg. Co., Rochester, N.Y

Hardware Jobbers
Clark, Quien & Morse, Peoria, Ill
Paxton & Gallagher Co., Omaha, Neb

Hardware Specialties
Carver File Co., Philadelphia, Pa
Enterprise Mfg. Co. of Pa., Philadelphia, Pa
Peck-Hamre Mfg. Co., Berlin, Wis
Peck, Stow & Wilcox Co., Cleveland, O
Pullman Mfg. Co., Rochester, N. Y
Smith & Hemenway Co., New York, N. Y

Heaters—Hot Water

Boynton Furnace Co., Chicago, Ill

Heating

Detroit Heating & Lighting Co., Detroit, Mich
Lalance & Grosjean Mfg. Co., Chicago
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Kelsey Heating Co., New York City
United States Reg Co., Ltd., Battle Creek, Mich

Hinges

Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago

Hollow Ware

Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Horse Nails

Standard Horse Nail Co., New Brighton, Penna

Ice Chests

Success Mfg. Co., Gloucester, Mass

Ice Cream Freezers

North Bros. Mfg Co., Philadelphia, Pa
Richmond Cedar Wks., Richmond, Va

Kitchen Utensils

Avery Stamping Co., Cleveland, O
Lalance & Grosjean Mfg. Co., Chicago
Lisk Mfg. Co., Canandaigua, N. Y

Lanterns

Berger Mfg. Co., Canton, O

Lawn Mowers

Clipper Lawn Mower Co., Dixon, Ill

Levels

Baker-McMillen Co., Akron, O
Davis & Cook, Watertown, N. Y

Lightning Rods

Maher & Son Lightning Rod Co., Preston, Iowa
Security Lightning Rod Co., Burlington, Wis

Mail Boxes

Blick Williams Co., Indianapolis, Ind
Peck-Hamre Mfg. Co., Berlin, Wis
Signal Mail Box Co Joliet, Ill

Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Polish

Hoffman, Geo. W., Indianapolis, Ind

Metal Shingles

Burton, W. J. Co., Detroit, Mich
Cortright Metal Roofing Co., Philadelphia
Nat'l Sheet Metal Roof. Co., Jersey City
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Miters

Whitacre, J. E. Mfg. Co., Rockford, Ill

Mop Heads and Handles

Eagle Cooperage Wks., Circleville, O

Mop Wringers

Eagle Cooperage Wks., Circleville, O

Nails and Tacks—Copper

Hungerford, U. T., Brass & Copper Co., New York

Nickel Plating Plants

Hanson & Van Winkle Co., Chicago

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American Lock Nut Co., Oregon, Ill
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Gerock Bros. Mfg. Co., St. Louis, Mo

Paints and Paint Specialties

Buckeye Paint & Varnish Co., Toledo, O
Connors, Wm., Paint Mfg. Co., St. Louis
Dixon, Jos. Crucible Co., Jersey City, N. J
Pitkin Co., Geo. W. Chicago

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Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Polish

Hoffman, Geo. W., Indianapolis, Ind
Nickel Plate Stove Polish Co., Chicago

Post Hole Augers

Iwan Bros., Streator, Ill

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Berger Mfg. Co., Canton, O
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American Lock Nut Co., Oregon, Ill
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Niagara Mch. & Tool Wks., Buffalo, N.Y

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Disston, Henry & Sons., Philadelphia, Pa

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Smith & Hemenway Co., New York, N.Y

Registers

Henry & Scheible Co., Cleveland, O
Mueller, L. J., Furn. Co., Milwaukee, Wis
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Symonds Mfg. Co., E. St. Louis, Ill
United States Register Co., Ltd., Battle Creek, Mich

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Wooden Ventilator Co., East Pastine, O

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Remington Arms Co., Ilion, N. Y
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Stowell Mfg. Co., Jersey City, N.J

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Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roof. Co., Jersey City
Reeves Mfg. Co., Canal Dover, O
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement

Connors Paint Co., The Wm., Troy, N.Y
Taylor Co., N. & G., Philadelphia, Pa

Roof Paint

Dixon, Jos. Crucible Co., Jersey City, N.J

Rules

Lufkin Rule Co., Saginaw, Mich

Sash Balances

Pullman Mfg. Co., Rochester, N.Y

Sausage Stuffers

Enterprise Mfg. Co. of Pa., Philadelphia, Pa

Saw Sets and Saws

Disston, Henry & Sons, Philadelphia, Pa
Goodell-Pratt, Greenfield, Mass
Smith & Hemenway Co., New York

Screens—Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks

Pullman Mfg. Co., Rochester, N. Y

Screws

Columbus Bolt Works, Columbus, O

Screw Drivers

North Bros. Mfg. Co. Philadelphia, Pa

Scuttle Openers

Bickelhaupt, G., Skylight Works, New York, N. Y

Seamless Tubing—Brass & Copper

Hungerford, U. T., Brass & Copper Co., New York

Shears

Bertsch & Co., Cambridge City, Ind
Niagara Mch. & Tool Wks., Buffalo, N.Y
Weiss, H. & Co., New York, N.Y

Sheets—Black and Galvanized

Berger Mfg. Co., Canton, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheet Metal Patterns

Gray, G. L., New York
Probert School of Instruction. Cincinnati, Ohio

Sheets—Planished

American Sheet & Tin Plate Co. Pittsburgh, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel

American Sheet & Tin Plate Co., Pittsburgh, Pa
Taylor Co., N. & G., Philadelphia, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Shot Guns

Remington Arms Co., Ilion, N. Y.
Stevens J., Arms & Tool Co., Chicopee Falls, Mass

Shovels

Avery Stamping Co., Cleveland, O

Siding

Milwaukee Corrugating Co., Milwaukee, Wis

Skylights

Burt Mfg. Co., Akron, Ohio
Eller Mfg. Co. Canton, O
Galesburg Cornice Wks., Galesburg, Ill
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Skylight Gearing

Bickelhaupt, G., Skylight Works, New York, N. Y
Weiss, H. & Co., New York, N.Y

Slate

Auld & Conger Co., Cleveland, O

Solder

Taylor Co., N. & G., Philadelphia, Pa

Squares, Machinists'

Disston, Henry & Sons, Philadelphia, Pa
Duby & Shinn, Branchport Station, Long Branch, N. J

Stampings—Sheet Metal

Avery Stamping Co., Cleveland, O

Stoves and Ranges

Beckwith, P. D. Estate, Dowagiac, Mich
Champion Steel Range Co., Cleveland, O
Chicago Stove Wks., Chicago, Ill
Comstock-Castle Co., Quincy, Ill
Culter & Proctor, Peoria, Ill
National Stove Co., Lorain, O
Reeves, S. V., Philadelphia, Pa
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Union Stove Works, New York, N.Y
Willard, Wm. G., St. Louis, Mo

Carriers—Stove

Kramer Bros. Fdy. Co., Dayton, O

Stove Cement

Dixon, Jos. Crucible Co., Jersey City, N.J

Stoves—Gas

Stove & Range Co. of Pittsburgh Pittsburgh, Pa

Stove Patterns

Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N.Y
Weller Pattern Co., Quincy, Ill

Stove Pipes

Hemp & Co., St. Louis, Mo
Reeves Mfg. Co., Canal Dover, O

Stove Pipe—Nested

Reeves Mfg. Co., Canal Dover, O

Stove Repairs

Brauer, A. G., St. Louis, Mo
Reeves, S. V., Philadelphia, Pa

Stove Trimmings

Troy Nickel Works, Troy, N.Y

Sugar Kettles

Sperry, D. R. Co., Batavia, Ill

Tanks

St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. N. Dubuque, Iowa

Test Tube Holders

U. S. Clothes Pin Co., Montpelier, Vt

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago, Ill

Tin and Terne Plate

Taylor Co., N. & G., Philadelphia, Pa

Tools—Linemen's

Smith & Hemenway, New York

Tinners' Tools

Berger Bros. Co., Philadelphia, Pa
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Smith & Hemenway Co., New York
Taylor Co., N. & G., Philadelphia, Pa

Tinplate

Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Schoedinger, F. O., Columbus, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa

Trough Hangers

Beutel & Co., Cleveland, O

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Philadelphia, Pa.
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper

Hungerford, U. T., Brass & Copper Co., New York

Ventilators

Canton Mfg. Co., Canton, O
Burt Mfg. Co., Akron, O
Eller Mfg. Co., Canton, O
Friedley & Voshardt Chicago Ill
Galesburg Cornice Wks. Galesburg, Ill
Globe Ventilator Co., Troy, N.Y
Merchant & Evans Co., Philadelphia, Pa
Powers Bros. Streator, Ill
Pullman Mfg. Co., Rochester, N. Y
Schoedinger, F. O., Columbus, O

Wagon Jacks

Steitz, J. R., Cudahy, Wis

Wagons

Sycamore Wagon Wks., Sycamore, Ill.

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Bramner, H. F., Mfg. Co., Davenport, Ia
Easy Washing Machine Co., St. Mary's, O
Hawkeye Incubator Co., Newton, Ia
Paxton & Gallagher Co., Omaha, Neb
Richmond Cedar Wks., Richmond, Va
White Lily Mfg. Co., Davenport, Ia and Toledo, O

Wire Goods

Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Wants and Sales

For Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F. St., N. W. Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Application."

Wanted—To buy a general stock of hardware, stoves, tinware with good tinshop in some good growing town or country. State amount of stock, business done last year, rent, etc. Address D-53, care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 20-3t

For Sale—No. 6 Remington Typewriter, as good as new, for $85.00. Will send C. O. D., subject to examination. Address Geo. F. Chapman, 157 A Street, N. E., Linton, Indiana. 20-2t

For Sale—Furniture and hardware business with tin and plumbing shop, in good little Oregon town with a population of 800. Stock will invoice about $7,000. Address D-54, care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 20-3t

For Sale—Clean, up-to-date Hardware, Implement and Buggy stock with tinshop in connection. Will invoice about $8,000; yearly sales over $25,000. Good town in Central Ohio. Business established twelve years without any change. In first class condition. Good reasons for selling. No trades. Address D 52, care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 20-3t

For Sale—Tin, plumbing and heating business. Chance of doing $20,000 a year. Will bear investigation. Address George F. Chapman, Linton, Indiana. 20-2t

For Sale—A general stock of hardware, stoves and tinware. Tinshop in rear with set of tinners' tools. Splendid location. No competition. Rent cheap. Stock and fixtures will invoice $3,000. Will sell for $2,000 cash. Anxious to retire. Address F. A. Scheidt, Joliet, Ill. 19ufn

For Sale—Hardware business, including stoves, cutlery, guns, fixtures and tinshop, in a rich farming community. Only hardware in village of 500. Will invoice about $5,000. A paying business and good reason for selling. G. W. Krieder, Tonica, Ill. 19-4t

For Sale—A first-class stove and tin store with a good tin shop in connection. Well equipped with tools. Old reliable business stand. Selling on account of death of owner. Address, Mrs. M. L. Boyer, West Liberty, Ohio. Box 81. 16ufn

For Sale—Tin, cornice and furnace shop at a bargain in one of the best towns in the state of Colorado. An average business of $8,000 a year. A1 field for out of town. Reason for selling, altitude too high for family. Address D38, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 16ufn

TINNERS' TOOLS.

For Sale—Nearly a complete set of tinners' tools and machines. Practically new; show no wear. Consist of small bench machines standards excepting a wiring machine and small burring and 1-2 in. 30 in. slip rolls, 1 Wright's patent sheet iron folder, 1 20 in. tin folder, 1 brass mounted groover, 1 trough beader, 1 blacksmith's drill press, 1 109 lb. anvil Trenton steel and 1 Trenton 6½ inch jaw, blacksmith's vise, quantity of drills, rivets, rivet sets and all small tools and stock of bolts, copper and tin which go to make up a first-class job tin and repair shop. These are Peck, Stow & Wilcox machines, inclosed pattern. Only forty miles from Chicago on third rail electric line; fare $1.00 found trip. Trains hourly. We have all kinds of tools to fit up a first-class shop. Must be sold by May 25th—first come first served. Call or address Oliver Kreamer, Aurora, Ill.

For Sale—A complete set of tinner's tools. Will sell cheap if taken at once. Address L. A. Kofron, Iowa City, Iowa. 20-1t

For Sale—The following list of tinners' tools: Stowell's beading machine, with stand; 1 large burring machine, with stand; 1 crimping and beading machine, with stand; 1 wiring machine, with stand; 1 20 in. grooving machine; 1 21 in. bar folding machine; 1 large turning machine; 1 30 in. sheet iron folder; 1 30 in. stove pipe former; 1 8x30 bench plate; 1 square head stake, 3½x5½; 1 round head stake; 1 13 in. hatchet stake; 1 conductor stake 14x14; 1 needle case stake; 1 hollow mondrel stake; 1 20-gutter beader. These tools are in good shape. If you want a bargain, write. Webster-Cook & Co., Mitchell, S. Dak. 19-2t

HELP WANTED.

Wanted—Experienced furnace and boiler salesman with some trade, to sell leading line of goods in Illinois, Wisconsin and Iowa. State fully particulars as to experience, age and salary expected. Address D 51, care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 20-2t

Wanted—A first class tinner and furnace man, who can do some plumbing. Don't want a boozer and none need apply. Steady job, work the year around without loss of time on my account. State wages wanted, and if married. Address P. O. Box L, Barry, Illinois. 20-3t

Wanted—Tinner and slater. Steady job the year around. Good wages to a steady man. Address P. H. Bayley, Sidney, Ohio. 20-2t

Wanted, Immediately—A good all around tinner for shop and outside jobs—one who is sober and willing to do the work just as it comes in the country. Single man preferred. Write at once to C. Scherer & Son, Naperville, Illinois. 20-3t

Tinners Wanted—Thorough mechanics with experience at making pieced tinware and capable of laying out patterns. State age, salary wanted and where you have been employed. Splendid opening for first-class men. Address Superintendent, No. 183, 14th Street, Flat No. 3, Milwaukee, Wisconsin. 20-2t

Wanted—A good all around clerk, tinner and plumber, at once. Good steady job in town of 1,000 people. Must be honest, sober and industrious. State wages and give references. German or Swede preferred. Address Thos. Rawlings, Wakefield, Nebraska. 20-3t

Wanted at Once—A good tinner with experience in roofing, gutters and all-around tinwork. Steady work to a reliable man. State wages in first letter. 25 miles north of Milwaukee. The Kraus and Green Hardware Company, Port Washington, Wisconsin. 20-3t

Wanted—A good, reliable tinner; must be first-class furnace man; steady job; 30 cents per hour. Address, Acme Manufacturing Co., Freeport, Ill. 19-3t

Help Wanted—Good all around tinner and furnace man; $3.00 a day. Steady job for right man. Address Peterson & Adams, Devils Lake, N. Dak. 19-3t

Wanted—A good tinner, work year around at good wages. Not required to do wind mill or well pump work. Desirable town to live in and correspondence will convince a good man that we can offer a desirable position. Address Edson Smith, Elmwood, Ill. 19-3t

Wanted—One good tinner and one tinner for roofing. Good wages and steady work. Apply Hoernel Hardware Co., 311 Sixth St., Racine, Wis. 19-2t

Wanted—At once, a good tinner. One with knowledge of furnace and steel ceiling work preferred. Address, stating wages wanted and references, H. R. Fehland Hardware Co., Merrill, Wis. 19-ufn

SITUATIONS WANTED.

Situation Wanted—As traveling salesman for hardware manufacturer by young man with twelve years' experience in the wholesale trade. The last five years and at present representing one of the largest jobbers in the country. Can give best of references as to character and ability. Address D 33, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 20-3t

Situation Wanted—As manager or clerk in a good retail hardware store. Have had twenty years' experience in the above line. As for integrity and business ability, can furnish best of references. Address W. R. Jones, Gibson City, Illinois. 20-3t

Situation Wanted—As salesman or manager in an up-to-date hardware store. Am a good stove salesman and can give good references. Address D-55, care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 20-3t

Situation Wanted—Young married man who understands plumbing, steam heat and gas fitting wants steady work in small town. Address A. J. Stephens, 7333 St. Lawrence Avenue, Chicago, Illinois. 20-1t

Situation Wanted—Practical Sheet Metal Worker desires position as foreman or assistant. Good workman, strictly temperate and attends to business. Can also cut patterns. Address C. W. Robinson, 1424 Wyandotte Street, Kansas City, Missouri. 20-3t

Situation Wanted—By a married man 35 years old. Am a tinner, plumber, hot water fitter, pump and general repair man such as stove, bicycle, guns, etc. Am no boozer and want steady position in small or medium size town. Am no lead pipe man. Address Box 155, Wilmington, Ill. 19-2t

SPECIAL NOTICES.

Special Notice

HAVE HAD CONSIDERABLE experience calling upon stove manufacturers and hardware jobbers. Can handle specialty to good advantage. Am desirous of making a change. Address "P. D. Q." care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 8-ufn

Special Notice

We want to get in touch with a good jobber or warehouse to distribute our stoves throughout the Northwest. Address with full details, "B-60" care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-ufn

WANTED

Side line salesmen to call on Hardware, Tin, Stove and House Furnishing trade for an all metal Bread and Pastry Board. Good Commission. W. H. Hartley & Sons, Cambridge Ohio. 11-ufn

TINSMITH WANTED

for Alberta; one who can do furnace work and general work. Wages to start, $3.50 per day. Apply direct to Hicks & Wakely, Lethbridge, Alberta or Merrick-Anderson Co., Winnipeg, Manitoba. 18-2t

Foreman Wanted

To take charge of factory making tinware specialty; one accustomed to dies and presses. Good salary and desirable position for capable man. State experience. Address "Foreman," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-ufn

WANTED

Six good tinners at once for Central Wisconsin town. No combination men need apply. Address "B-56," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 11-ufn

WANTED

Hardware Stock. Have a well located improved farm to exchange for a stock of hardware or hardware and implements. Give full particulars as to stock and business in first letter. Address, "B-64," THE AMERICAN ARTISAN, 69 Dearborn St., Chicago 17-4t

Notice Sliding Sleeve Damper. Patented.

With the Competition

of every other standard make, we have just shipped *forty-six* 30-inch Burt Ventilators to the Warwick Mills, Centerville, R. I., one of the largest textile mills in the East. Besides perfect and satisfactory operation at all times, Burt Ventilators, in the opinion of the actual user, possesses the advantages of having every necessary and advance feature. (See engravings.)

Burt Ventilators

after proving their superiority in the above case, were selected by the mill architects, to be used on the large plant of the Grinnel Mfg. Corporation, New Bedford, Mass., for which we have just received an order for *thirty-three* 30-inch Burt Ventilators. "The best advertisement is the satisfied customer."

Send today for our handsome 64-page general catalogue—it is free.

The Burt Mfg. Co., 650 Main St., Akron, O.

Largest Manufacturers of Oil Filters and Exhaust Heads in the World.

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SPECIAL NOTICES.

WANTED

I can pay the highest market prices F. O. B. your city, for all kinds of old metals, such as copper, brass, zinc, lead, babbitt, skinnings, etc. Drop a line and I will be glad to name my best prices.

H. KANDER, Bowling Green, Ohio. 3-ufn

Special Notice

Am traveling four times a year to all jobbing points in the Central West, from Winnipeg to St. Louis, East of Denver, calling on the jobbing hardware trade, heavy hardware and wholesale saddlery trade. Would solicit two good lines in connection with two I now have. Satisfactory references. Address, Wm. R. Howell, 1719 Green Street, Philadelphia, Pa. 10-2t

Special Notice

Brother Sheet Metal Workers:—Send me your difficulty in a letter, plainly sealed, so I will know just what you want, and enclose a dollar, and I will send you full typewritten instructions, accompanied by drawings if I cannot make it perfectly plain without. No publicity, and no one to laugh at you. I have had more than 25 years experience and am an active sheet metal worker at present. If you are not perfectly satisfied tell me frankly, and I will return your money just as frankly. Address H. E. Osborne, 335 Center St., Salt Lake City, Utah. 10-2t

Gray's Perfect Blue Print Patterns for Sheet Metal Work

160 elbow patterns, from 1 inch to 40 inches, and angle chart	$2.00
Full set of skylight patterns, for 1 inch bar and skylight chart	3.00
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Full set of Turret skylight patterns, to operate by gearing	2.00
Full set of (Louver) skylight patterns, to operate by cord and pulley	2.00
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Full set of Letter and Figure patterns, from 3½x8 to 15x20 inch	$2.00
Full set of Liquid Measure patterns, from 1 gill to 1 gallon	1.00
Full set of Ventilator patterns, from 6 inch to 29 inch and F. S. detail	2.50
Full set of Ventilator patterns, from 23 inch to 36 inch and F. S. detail	3.00
Full set of Metal Window patterns and detail for sliding sash	6.00
Full set of Metal Window patterns and detail for Casement window	6.00
Full set of Metal Window patterns, pivoted top sash, stationary bottom sash	5.00
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I WOULD LIKE to have **a good sheet iron worker** in each town in the U. S. manufacture for me a patent article **to supply the trade in his town and neighborhood.** Device made of Galvanized Iron; can be built in any good sized tin shop; **good demand** for it; **good profit** in making it: can be worked into a good business. Address R. M. 312 Merrill Building, Milwaukee, Wis.

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We pay one cent a pound f. o. b. cars your city for the bands that come around sheet iron. Write us or send at once and bill. Must be ¼ inch thick and without ragged edges.

THE PECK-HAMRE MFG. CO.
BERLIN, WISCONSIN

FREE

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Write to-day—Address

The E. R. Probert School of Instruction
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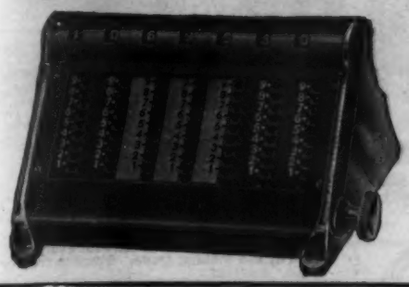

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will give you clear and smooth face plates, and where ornamentations occur they will be well-defined.

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Nine-Tenths Saved

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DURABLE, STRONG, LIGHT.

The plate is corrugated to prevent warping. Stamped from best nickeled steel. Sharply pointed steel stem, notched to engage edge of plate. Held in place by spring, and carefully fitted to loop to prevent turning. *Absolutely the best on the market*

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THE "Acme"

THE "Acme"

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Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States.

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In the event your jobber does not handle this pipe send your inquiries to us.

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CLEVELAND CASTINGS PATTERN CO.

Successors to

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The LARGEST PATTERN WORKS in the World

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For Stoves and Heaters

First-class in wood and Iron.

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DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

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IRON & WOOD STOVE PATTERNS

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Our Stock Comprises
CUT COPPER NAILS
All Sizes, in
Regular Cut — Boat
Slating — Sheathing
Stem — Clout
Finishing — Oval Head Trunk
Also
YELLOW METAL NAILS
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TRADE MARK STAR BRAND
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Our Stock Comprises
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All Sizes, for
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STOCK SHEET SHOWING FULL ASSORTMENT ON HAND. SENT ON REQUEST.

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We Will Replace Without Charge Any of Our
ALUMINUM COATED
Conductor Pipe, Eaves Trough, Roof and Box Gutters,
Valley, Ridge Roll, Mitres, Elbows and Shoes
That Rust Out Within 25 Years!
Look for Brass Label on each Joint with above guarantee. Write for Sample and Prices
The Reeves Manufacturing Company,
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YANKEE DAMPERS and CLIP (All Steel)
SAMPLE FREE

SMOKE PIPE SIZES
3 inch to 8 inch
HOT AIR PIPE SIZES
6 inch to 15 inch
Easiest to Get In or Out
Best & Cheapest Damper Made
GET OUR PRICES
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Stove Trimmings
THE TROY NICKEL WORKS
John E. Gaitley, Prop., ALBANY, N. Y.
ALWAYS COLD—as their name implies. The "ALASKA" is sold everywhere.

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Our Spring Catalog of House Furnishings now ready. If you are located West of Mississippi River write us for a copy. We can save you money.

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You Don't Have to Take Our Word for the Reliable
GOODNESS OF
COAT-ROID RUBBER ROOFING

Nor do you have to ask your customer to depend on your simple assertion that it is all right. We will give you

A WRITTEN GUARANTEE

to be handed anyone who wants to be "shown." We agree to furnish new roofing FREE if COAT-ROID proves defective, and we will protect you and your customer just as absolutely as COAT-ROID will protect the building.

ASK ABOUT OUR EXCLUSIVE AGENCY PROPOSITION THERE'S MONEY IN IT FOR YOU!

St. Paul Roofing, Cornice and Ornament Co.

Everything in Sheet Metal — ST. PAUL, MINN.

ELEVATORS
IMPROVED QUICK AND EASY RISING STEAM, ELECTRIC AND HAND POWER
SEND FOR CIRCULARS
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CRATED READY FOR SHIPMENT — NO SOLDERING — NO PUTTY — NO LEAKS

Can be shipped anywhere safely at a low freight rate. Can be set up by anyone. Write for Catalogue.

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Are you interested in Steel Ceilings?

Lap-Joint
A large variety of designs made of the best grade and weight of steel. Careful workmanship. Each panel nests perfectly, so it is as near dust-proof as it is possible with this construction.

Lock-Joint
Makes the neatest finish, and is absolutely dust-proof and air-tight—an advantage found in no other construction. Has been accepted by the United States Government Engineers.

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YOUR PROFITS on a job of metal ceiling depend upon the time occupied in the erection. If the plates do not fit, and the alignment is bad, it means your profit will be small and you will present an unsatisfactory job to your customer. Better be on the safe side and buy "Canton" Metal Ceilings, the profit sharing kind

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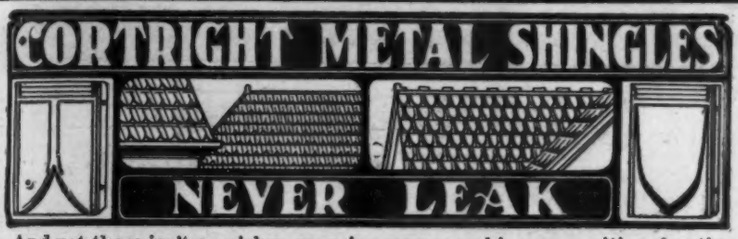
"Your paper has furnished me with more than ten times the value of its cost."



And yet there isn't a quicker or easier money making proposition for tinners to handle than those Cortright shingles. Hundreds of tinners have found this out—have you? If not, better ask about it to-day.

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Manufacturers of

FIREPROOF METAL WINDOWS

"Glazed with Wire Glass,"
Made either stationary, pivoted or sliding sash.

Architectural Sheet Metal Work of All Kinds

in Ornamental and Fireproof Construction. Write for illustrated catalogue.

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and make joints that will stay tight—that can't get loose—that do away with any possible chance of sewer gas leaks.

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Crescent Gravel Roofing

The most durable Roofing made. Constructed of Asphalt and Asphalt-saturated felt, surfaced with crushed granite.
Absolutely Fire, Water, Acid and Weather Proof.
Is easily and quickly applied. Takes a low rate of insurance.
Put up in Rolls laying 100 square feet—nails and cement packed in each roll.
Get our prices on this Modern Roofing Material and SAVE MONEY.

Buy of The Big Manufacturer

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This Cut designates that

WE REDUCED the price of Elbows

ALL THE TINNERS KNOW IT!

THE LARGEST SHEET METAL WORKS IN THE MIDDLE-WEST

·MILWAUKEE CORRUGATING CO·

MILWAUKEE — WISCONSIN.

Perfection in Metal Ceilings

THE GOODS MANUFACTURED BY

FRIEDLEY-VOSHARDT CO.

ARE IN A CLASS BY THEMSELVES

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EAVES TROUGH
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ROOFINGS AND SIDINGS
STEEL CEILINGS
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QUICK SHIPMENTS OUR SPECIALTY

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Do Not Be Deceived

when you order Elbows and Shoes from ANY CATALOG Showing this Line of Electros.

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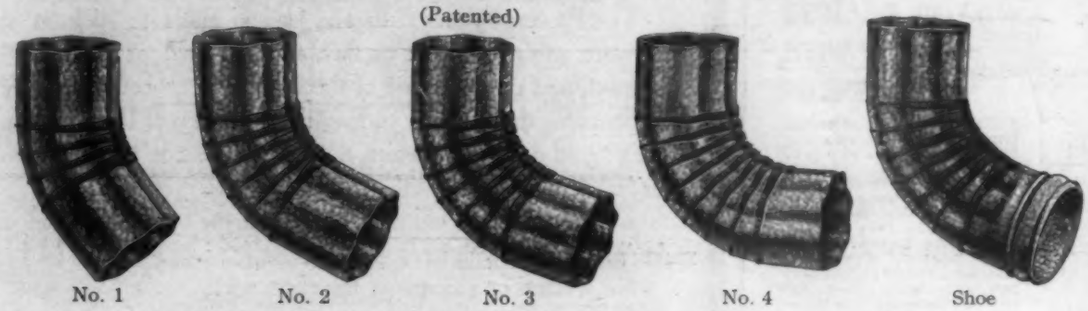

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Insist that the Elbows shipped you bear Trade Mark

F. Dieckmann

or refuse the Shipment.

FERDINAND DIECKMANN

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HAVE YOU EVER HEARD OF A TARRED RAG ROOFING WITH A GUARANTEE LIKE THIS?

A PURE RE-HAMMERED CHARCOAL IRON BASE AND ALL THE COATING THAT CAN BE PUT ON IT

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Blick No 3 The Best Box
FOR RURAL FREE DELIVERY
$5.88 Per Dozen

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Sell them Blick No. 3 boxes. They are big ones, 6½x8½x19 inches. Made of heavy galvanized steel. Painted green, the new Government color. Same shape and color as city boxes. Have Positive-Locking Flag Signal, Automatic Latch, Water-Tight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

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Rural Routes are going in all around you. You can get this business with the SIGNAL MAIL BOX

It is the original box for Rural Routes with special endorsements of Postmaster General. • The best made, the best liked, the easiest sold and the best advertised.

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The Dayton Swing Chimney Top

The easiest turning chimney top made. Guaranteed to work where others fail. All sizes from 4 to 24 inches.

Manufactured by
The Kramer Bros. Fdry. Co.
DAYTON, OHIO
Largest Manufacturers of Swing Tops in the World

Stamping Roofing Plates

"Reg. in U. S. M&E Pat. Off."

with brand or weight of coating is not the only protection due the architect, property owner and tinner.

The Process by which tin and lead is made to stick to the black plate, using palm oil as a flux, and not acid as a flux; the assortment, and the reputation of the manufacturer, count for more.

Stamping the "American Eagle" on a piece of brass does not make a "gold dollar," therefore, the brand does not carry the only security.

The "Merchant's old method" carries the test of time and the maker's reputation with it.

No wasters or seconds of this plate sold.

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Successors to MERCHANT & CO., Inc.

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"Target and Arrow Old Style Brand Roofing Tin"

Ex-Governor Smith, of Vermont, covered his residence at St. Albans with "TARGET AND ARROW Old Style" tin in 1860, and that roof is still giving good service.

TARGET AND ARROW Old Style roofing-tin is handled by all leading hardware jobbing houses throughout the United States.

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REGISTERED
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N.&G.TAYLOR CO
PHILADELPHIA

Fac-simile of the Trade-Mark stamped on each sheet of the "TARGET-AND-ARROW Old Style" tin. Registered in U. S. Patent Office.

Note that we now use the old name for the brand—"TARGET AND ARROW Old Style."—rather than the words "Taylor Old Style," which have been imitated in every possible way by other tinplate houses.

Send for our "Guide to Good Roofs," giving arguments in favor of tin roofing.

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Established 1810 Philadelphia

SPERRY'S SUGAR KETTLES

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

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SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS:

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
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MANUFACTURED BY

AMERICAN SHEET & TIN PLATE COMPANY

FRICK BUILDING PITTSBURGH, PA.

GEROCK BROS. MFG. CO.

Sheet Metal Ornaments and Statuary

Detail Work A Specialty
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Big Money For Dealers

in Metal Ceilings, Side Walls and Tiling for use in Stores, Factories, Homes and every kind of a building, old or new—if you sell NORTHROP Steel Ceilings and Walls.

Northrop Steel Ceilings and Walls

are not only the *finest made* at any price, but they are also the *best known* line because *the most extensively advertised* line.

Our big Magazine Advertising Campaign reaches *over three million readers* every month—and inquiries are always referred to the nearest Dealer.

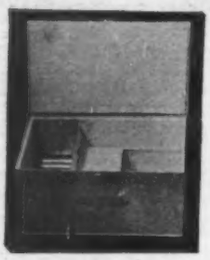
We also help each Dealer *personally and individually*, as no other Manufacturer does.

Write for Catalog and Price List and our Booklet "How We Help the Dealer," which explains in detail, the big profit in selling this line of goods either as a special Department or as a side line, and *how we help* the Dealer sell.

Northrop, Coburn & Dodge Co.
31 Cherry Street, N. Y.

SUCCESS

STEEL ICE CHESTS



Fill a long felt want on the market for a small and medium sized Ice Chest which is perfectly sanitary and in which food can be kept in warm weather at a small cost. It is constructed entirely of galvanized steel double throughout with air-tight air space all around sides, bottom and cover. Made in five sizes Smallest size suitable for automobiles boats and nurseries. Quick seller and money maker. Send for circular and prices.

SUCCESS MFG. CO.
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FOR CONDUCTOR PIPE—ALL SIZES

For Brick or Wood

Made of the best malleable iron and first-class in every way. Send for catalogue-

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WIRE GLASS—RIBBED GLASS
FLOOR GLASS
AND METALLIC SKYLIGHTS

At Prices that will Interest You

POWERS & WILLIAMS, Streator, Ill.

Eagle Mop Wringers and Ohio Detachable Mop Heads and Handles

Meet every service demanded of them. WHY?
Because they are built upon the correct principles. They have been hailed with delight by users, and the universal verdict is, I WANT NO OTHER. Ask your jobber or write us direct. A catalogue for the asking.

Eagle Cooperage Works, Sole Mfrs., **Circleville, O.**

Hottest on Earth
The No. 39 Bonanza Furnace

That is what we give you when buying a No. 39 Furnace for all around work. The tank is made of seamless drawn brass. We make many styles of Furnaces and Torches for kerosene as well as gasoline. Our Catalog will give you full particulars. Order through any jobber, or send us $4.50; we will ship direct.

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26 No. Franklin Street, - Chicago

No. 1 Fire Pot. $6.00 Net

Results Count

While some may be able to induce their trade to pay for the time wasted by their workmen in trying to make a poor fire pot or torch work, we believe the **wide-awake, up-to-date merchant knows that their customers compare costs and results,** and if their neighbors bill for similar work is less or more than theirs they know it and are influenced by it in placing their next order. **Mechanics** who know say **"We cannot afford to use anything but Clayton & Lambert fire pots and torches even if the others cost nothing."** Why not profit by their experience.

Jobbers supply at factory price. Cash must accompany all orders sent to the factory.

CLAYTON & LAMBERT MFG. CO.
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"G. B." GAS HEATERS for SOLDERING COPPERS
SAVES GAS AND LABOR

The burner is so constructed that no dirt can get in it and obstruct the flames

Both flames meet against the coppers

NO WASTE OF GAS

PRICE $2.75 F. O. B. N. Y. All Goods C. O. D.

Has Hinged Movable Top and Movable Copper Rests.

Made of Cast Iron, and can be easily regulated by Air Mixer at Back.

State whether for City or Natural Gas, or for Blower System.

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SECURE
PROTECTION AND LONG SERVICE BY USING OUR
ASPHALT ROOFING
SAVES REPAIRING
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Send for Samples and Pamphlet
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THE SUPERIOR

is the Newest, Most Practical, Economical and Best Constructed

GAS SOLDERING FURNACE

on the market. For natural, illuminating or producer gas. Burns with a mixture of air and gas in a proportion of about **92 per cent air** and **8 per cent gas,** giving an **excellent heat.**

MANUFACTURED BY

THE G. M. YOST MFG. CO., Mechanicsburg, Pa.

Star Spraying Machines

For Whitewashing, Painting, Spraying of Insecticides, Etc., Etc.

15 DIFFERENT STYLES AND SIZES.

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Draw on the Chimney

for a larger draft by mounting it with

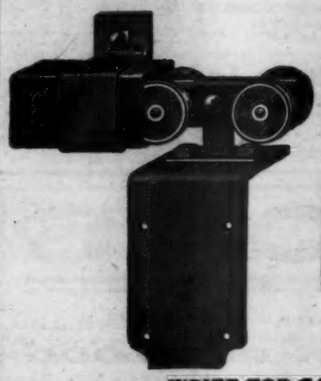
Iwans' Volcano Revolving Chimney Top

Sizes, 6 to 12 inches. Sold by jobbers of hardware and tinners' supplies.

IWAN BROTHERS

Manufacturers of Hardware Specialties

Catalogue Free STREATOR, ILL.



Richards Trolley Roller Bearing Barn Door Hanger

The Best Trade Winner on the Market

SPARROW PROOF
WATER PROOF
JUMP PROOF
Lateral Adjustment

Made to Suit Door of Any Size or Weight

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The Richards Manufacturing Co., AURORA, ILLINOIS.

Two Reasons Why The Steel Brakes Are Better

Others Will Follow

1. By our patented construction we have succeeded in getting the greatest amount of strength with the minimum weight. They work much faster and easier, and do fully one-fourth more of the average work than any other brake.

2. They are made of Bessemer Steel, and all the working parts where strength is required are made of non-breakable steel castings.

You will be surprised to find out how cheap you can buy this up-to-date machine

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STRAP & T HINGES
Pressed
Steel Shelf
Brackets

BUTT HINGES
Barn Door
Hangers
and Track

Our Planished Steel **STRAP and T HINGES** are now all made on Automatic Machinery—Every one is as true as a Die.
Our **BUTTS** are unequalled in Workmanship and Finish, All our Goods Guaranteed—**BEST IN THE WORLD.**
(And they cost no more.)

THE GRIFFIN MFG. CO., - Erie, Pa.

Magic Pattern Rule **Will Lay Out Patterns**

for any size and angle of elbows in three minutes' time. Can also be used as Straight-edge Rule, Circumference Rule and Trammel. Should be in every Tinshop. Will save its cost in a few weeks. Thousands are in use and every one giving excellent satisfaction.

Price, complete in a nice wooden box with Chart, $4.00 net cash.

LUFKIN RULE CO., Saginaw, Mich. (Mention THE AMERICAN ARTISAN.)

DO YOU KNOW **Pierce's Patent Commode Pail**

COMMODE PAIL

is the only one having a latest improved closet seat which need not be removed when cleansing. Seat is on outside of body with braces riveted to side of pail. Made of galvanized iron painted and decorated in assorted colors or finished in white enamel. Packed one fourth dozen per crate.

Get a trial order from your jobber and we assure you, that you will buy none other. If you do not find them better than any made to-day, you may return them to us and we will pay your bill.

FOR SALE by the jobbing trade only.

PIERCE & LAUX
Manufacturers of Hardware Specialties Sell to Jobbers Only
BURLINGTON - - - IOWA

The **"Matchless" Double-Acting Floor Spring Hinge**

is what its name implies.

Ball Bearings insure ease of operation and absence of friction and noise. These hinges are simple and durable in construction and are *made to fit any door*, be it Bank, Church, Vestibule or Pantry.

Get complete catalogue and price list by addressing Dept. A.

LAWSON MFG. CO.
40 Dearborn Street, Chicago.
101 Reade Street, New York.

PULLMAN SASH BALANCES

Are you selling them?

IN USE EVERY-WHERE

Send us your orders

PULLMAN MFG. COMPANY
ROCHESTER, N. Y., U. S. A.

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths.

Will not burst when full of ice.

CLARK, QUIEN & MORSE, PEORIA, ILL.

"UNIVERSAL" Screen Door Catches

Are Superior to All Others

Made from the very best **STAMPED WROUGHT STEEL**, in **Old Copper Finish.** Automatic Friction Catch with stop holds door firmly shut. Locks from inside. Unequaled for **Simplicity, Strength, Durability and Convenience.**

VERY EASILY PUT ON

No Mortising or Cutting for either lock or striker. Sold by all leading jobbers, or direct from

Sole manufacturers

THE PECK, STOW & WILCOX COMPANY

CLEVELAND, OHIO, and 27 Murray St., NEW YORK CITY

LOWEST PRICED LOCKING SCREEN DOOR CATCH ON THE MARKET

The NEW Universal Square

Is proving itself sure to become the Standard Tool of its kind.

MADE IN THREE SIZES:
No. 6 - 6" No. 10 - 10" No. 13 - 13"

The only kick coming on us is that we did not fill orders promptly. We did not expect so heavy a demand. It was not our fault.

If you have tried to get this tool from your jobber and become discouraged because he was one who could not get his order for them, we now advise you that this condition has been overcome by our building a large country factory where they are being made by the thousands, and every order, whether sample or stock, is shipped promptly.

So, Try, Try Again!

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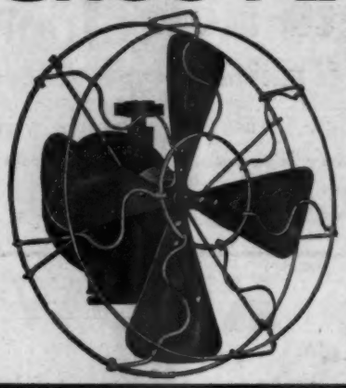
Branchport Station.
Home Office and Works, LONG BRANCH, N. J.

SHOO FLY 30,000 IN USE



I am another one of those "**Red Devils,**" and I do worry the **devil** out of **flies,** as I shoot them with a constant current of air all the time.

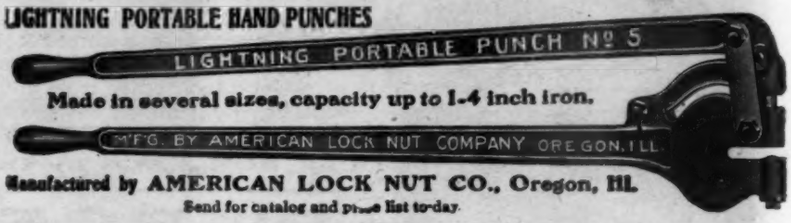
Stick me on any house faucet and I will convince you that here is another **Red Devil** that will not trouble you, but will trouble flies, and keep the moisture off your brow.

The Genuine Red Devil Water Motor Fan

Ask your jobber for prices and catalog.

SMITH & HEMENWAY CO.
108-110 Duane St., NEW YORK CITY

LIGHTNING PORTABLE HAND PUNCHES



Made in several sizes, capacity up to 1-4 inch iron.

Manufactured by AMERICAN LOCK NUT CO., Oregon, Ill.

Send for catalog and price list to-day.

THE SHAVEZY GUARD

May be adjusted to any blade.
Instantly changed from right to left.
Is the best and a Cheap Guard.

Get my prices, which are right.

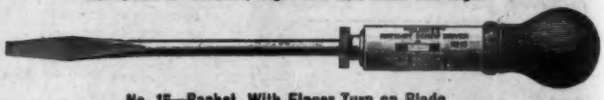
L. T. WEISS, Sole Manufacturer
288-290 Taaffe Place, BROOKLYN, N.Y.

"Yankee" Tools

ARE THE NEWEST, CLEVEREST AND QUICKEST SELLING,

and are without equal in quality or efficiency in practical use.

No. 10 and 11—Ratchet, Right and Left Hand and Rigid



No. 15—Rachet, With Finger Turn on Blade

No. 30 and 31—Spiral Ratchet, Right and Left Hand and Rigid

No. 40-41-44—Automatic Drill

No. 50—Reciprocating Drill for Wood or Metals

Send for "Yankee" Tool Book

North Bros. Mfg. Co., Philadelphia

Goodell-Pratt Company
GREENFIELD, MASS., U. S. A.
Catalogue Free
HACK SAWS
FAMOUS FOR TEMPER AND CUT
HAND AND MACHINE BLADES OF ALL STANDARD LENGTHS AND WEIGHTS.

AKRON ECLIPSE LEVELS

All glasses in **Akron Eclipse Levels** are carried on elastic bearing and enclosed in heavy glass tubes and are almost unbreakable.

SEND FOR CATALOGUE ILLUSTRATED IN COLORS
The BAKER McMILLEN CO., Akron, Ohio, 13 Bowery St.

IMPROVED ADJUSTABLE "S" NUT WRENCH

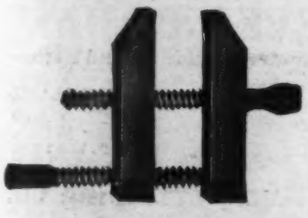
No. 48

The STANDARD among Wrenches of this Style

Graceful in design, constructed of the **very best materials.** The operating nut being of sufficient diameter, the wrench is very easily adjusted by the thumb of the hand which holds it. All the parts are **strong** and **durable,** the operating nut is **steel** and the sliding jaw a steel drop forging. Hardened and tempered—thoroughly made. Parts are interchangeable. Send for catalog.

BEMIS & CALL HARDWARE & TOOL COMPANY, SPRINGFIELD, MASS.

The Hand Screw with the Saw-Cut Thread



The Best That Money Can Buy.

Our Hand Screws are the result of 15 years' experience in making Cabinet Maker Clamps, Etc. We make a complete line of Cabinet Clamps, Cabinet and Manual Training Benches and Factory Trucks.

Write for Catalog.

GRAND RAPIDS HAND SCREW CO.
160 South Ionia Street, GRAND RAPIDS, MICH.

When you sell Levels—Sell the right kind

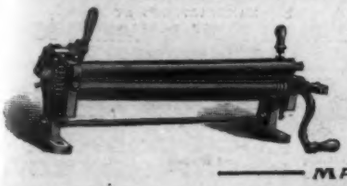
A Tool you can sell quickly, profitably and satisfactorily to Carpenters, Masons, Machinists, and all who use Levels or Plumbs, is the

DAVIS & COOK LEVEL.

The different Level—with the bulb seen in all positions. Any mechanic will buy when he examines. Put in stock.
For sale by all the leading jobbers. Catalog on request.

DAVIS & COOK, 23 High Street, Watertown, N. Y.

Slip Roll Former



Tools for Sheet Metals
INCLUDING
Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery
MADE BY
NIAGARA MACHINE & TOOL WORKS
BUFFALO, N. Y.

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Skylight Gearing and Chain Lifts

Punch, Shear and Bender Combined for ¼" Iron

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Clipper Lawn Mower Co. DIXON, ILL.

Manufacturers of Hand and Pony Mowers, also Marine Gasoline Engines from 2 to 8 horse power.

THE MOWER That will kill all the weeds in your lawns

If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders or roots, the grass will become thick and the weeds will disappear. **The Clipper will do it.** If you wish Clippers, send in your orders.

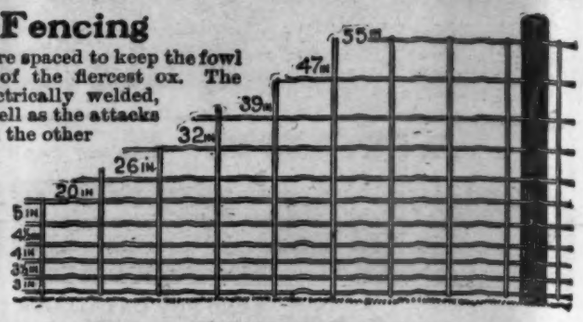
8-foot Shear

We build a complete line of Shears, Punches and Forming Rolls, for either hand or belt power.
BERTSCH & CO., Cambridge City, Ind.

"Pittsburgh Perfect" Fences

For Field, Farm and Hog Fencing

are made to meet all the demands they are subject to. They are spaced to keep the fowl within their limits and are calculated to stand the strength of the fiercest ox. The wires and rods are of the best steel the market affords, electrically welded, and are galvanized so that they can resist the elements as well as the attacks of the curbed in animals. They are just as meritorious as all the other



"Pittsburgh Perfect" Brands

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MANUFACTURED BY

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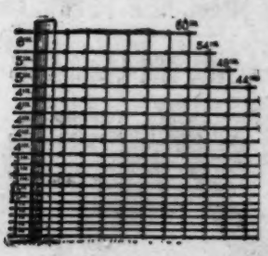

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Is the fence that pleases your customer. It is made on scientific and practical principals. It is made in various sizes, weights and meshes, for stock, hogs, poultry and rabbits. We can also sell you Lawn and Cemetery Fencing, Gates, Barb Wire, Nails, Staples, Portable Corn Cribs and Grain Bins.

WRITE FOR CATALOGUE AND PRICES

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TEN GOOD REASONS

Why You Should Use the Security Copper Tube Lightning Rod in Preference to Any Other:

1. It is constructed on the most scientific principles; receiving the highest award, diploma and medal from the Royal Academy of Science and Arts, Paris, France, April 30, 1897.
2. It has a large, round, smooth surface, the best form for a lightning conductor.
3. It is the only lightning rod patented in the United States with Automatic Water Supply insuring a Perfect Ground Connection at all times, which is the most important part of any rod.
4. It is the only Copper Rod that has a patented Coupling of Pure Copper, which makes the joint the strongest part of the rod.
5. It is held up off the building by a Galvanized Fastener and Galvanized Brace, not resting on the building to form a dam for water to rot the shingles.
6. It is furnished with the most complete and best outfit of fixtures, points, balls and vanes.
7. It is sold by responsible business men, who see that it is properly put up and kept in repair.
8. It has never failed to afford perfect protection from lightning and gives general satisfaction in every respect.
9. The company is responsible and gives you a guarantee on the rods for twenty years, will refund all money received for the rods and pay $500 reward to find a building burned by lightning with their copper tube rods on in circuit form.
10. The above offer has been made for the past 14 years and the reward has never been claimed. This proves that our lightning rods are sure and perfect protection against lightning.

The Security Lightning Rod Co.,
BURLINGTON, WIS.

Where Successful business men have advertised is pretty safe to advertise.

Pure and Safe

Are only those **Cooking Utensils** which will not **Scale off** like Cheap Enamel—**Not Scorch or Burn** like light fry-pans and skillets—**Not Absorb Grease or Flavors** like Cast-Iron. In a word **"HYGIENIC"** is the condition and **"HEALTH"** the result when using

"NEVER-BREAK"

Steel Spiders, Griddles and Kettles

Look for the **Brand**—it is what the signature is to a Bank Check—you can't expect the **genuine** from more than one.

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Sole Mfrs. "NEVER-BREAK" GOODS.

BUCKEYE CARRIAGE PAINT

Ground in Fine Coach Varnish of Our Own Manufacture.

Dries quickly with a handsome gloss and durable finish.

It looks better, goes farther and lasts longer than any Paint on the market.

Unquestionably the Best Paint Manufactured

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AGATE L & G MFG. CO. NICKEL-STEEL-WARE

Is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade mark. Look for the blue label.

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GUARANTEED

Not simply a high sounding but meaningless string of words, neither an empty guarantee to give satisfaction, but a definite, absolute, binding guarantee that this paint will

WEAR FIVE YEARS

or paint for repainting is yours without charge.

That is the kind of guarantee we put on Pitkin's Barn Paint and it lives up to it too.

GEO. W. PITKIN CO.

Paint and Color Makers

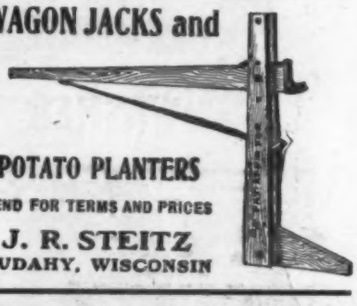
Established 1868 CHICAGO, U.S.A. Originators of Barn Paint

MAHER & SON LIGHTNING ROD CO. is the only firm that makes a 32 wire cable. Arrow Vanes made of Pure Cast Aluminum; Horse, Cow and Rooster Vanes made of Pure Zinc instead of tin and 34 ins. long, pure copper bayonet points. Giving $500.00 guarantee.

We have the finest static machine now, something new and given to our agents FREE. Write to-day for Agency and territory. Our prices are right.

MAHER & SON LIGHTNING ROD CO., :: PRESTON, IA.

WAGON JACKS and



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SEND FOR TERMS AND PRICES

J. R. STEITZ

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Factory Locations

Any Manufacturer, Hardware Merchant or Artisan in search of another location at some town where conditions would be "Right," should investigate the excellent opportunities existing in the Southwest, especially in the new STATE OF OKLAHOMA along the lines of the

Rock Island FRISCO

For the Merchant or Artisan, excellent trade conditions prevail; while the Manufacturer would find all conditions favorable and also secure some inducements from Commercial Clubs.

Send for a copy of the new complete book "OPPORTUNITIES" describing all sections along the Rock Island-Frisco.

M. SCHULTER, Industrial Commissioner,
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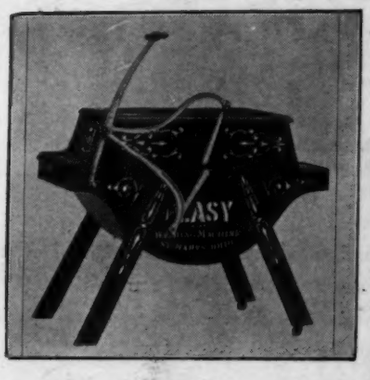
1144 Frisco Building. ST. LOUIS, MO.

The Fulton Hardware Co., Portland, Ind., write:

"Please discontinue our want ads for tinner and plumber, as we have received more replies than we can take care of at present."

THE EASY
Washing Machine

It Sells on Sight
Stays Sold



Has the largest rubbing capacity and is the EASIEST RUNNING machine on the market.

Write at once for our Attractive, Exclusive Agency Offer.

Manufactured by

The
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Reciprocating Motion

by means of Compound Levers, combined with time-tried and universally endorsed principles in Clothes Washing—High Speed Ball Bearing Fly-Wheel makes operating next door to

PERPETUAL MOTION

The "One Minute" Washer **washes cleaner** than any other machine.

The "One Minute" Washer we claim, without dispute, to be the **easiest running** machine on the American market.

The "One Minute" Washer does the work in **less time** than others.

Manufactured by
Hawkeye Incubator Company
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Indiana dealers address Hawkeye Incubator Co., Indianapolis, Ind., 320 S. Delaware St.
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The MAJESTIC
WASHING MACHINE

Roller bearings. Large fly wheel. Lightest running Washer on the market. People are writing us daily to know where they can buy the Majestic. It is the quickest seller and commands the biggest profit to you of any Washing Machine made. That is why you should sell it. The tub of the **Majestic** is made of selected **Virginia White Cedar,** and will stand the action of water a life time. It is bound with our celebrated **Electric-Welded Wire Hoops,** is steam-tight and easy to operate. Two hundred thousand satisfied customers will testify to all we say.

We are shipping out 2500 Majestics each week. Write us for catalogue and prices.

Richmond Cedar Works
Manufacturers of Wooden Ware
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THE
WHITE LILY

SELLS AND STAYS SOLD

There are more WHITE LILY WASHERS SOLD than of any other make of WASHING MACHINE.

DO YOU WANT A GOOD SELLER
WRITE TODAY

White Lily Manufacturing Co.
TOLEDO, OHIO. DAVENPORT, IOWA.

HILL'S
Famous
DRYERS
for the lawn
500,000
in use.

Made also for Balcony and Roof.
Send for Catalogue AA.

HILL DRYER COMPANY
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THE MARTCROSS CO., 40 Dearborn St., CHICAGO

We have a Hardware Delivery Wagon that you can Depend Upon.

Body 20 in. from the ground; full width; regular heighth wheels, and yet will turn short.

Easy to Load and Unload.

Durability guaranteed.
Complete catalogue on request.
Mention this paper and address in full.

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SCHMIDT HARDWARE CO., Sheffield, Iowa, writes:—"The more we read your paper the better we like it and wouldn't think of getting along without it."

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WHY NOT HANDLE
THE BEST

The Royal Blue

is the most **perfect, easy-running, simple, powerful, durable** and **common sense WASHING MACHINE** manufactured. It **guarantees satisfaction** and is a machine that **WILL SELL.**

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AUTOLOADING RIFLE

The new, 5-shot, repeating hunting Rifle which *loads itself*, and is "big enough for the biggest game." Calibre .35 Remington; velocity *2000 feet*; weight of bullet, 200 grains. It strikes with the force of a mighty hammer, nearly a ton in weight, and penetrates machine steel 5/16" thick, as shown below. Solid breech, safe-locking system, light trigger pull and loads with clip. Every luxury with rapid-fire, knockdown execution.

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ALL OF THEM THE WHEELING BRAND.

Extra Heavy

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Patent Self Dipping Well Bucket

Fills Itself When it Strikes the Water

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Wheeling Corrugating Co., MAIN OFFICE AND WORKS: Wheeling, W. Va.

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With Wringer Attachment

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Large Stocks of all our Products are Carried at the Factory and in all the Warehouses

The Wheeling

SCORES THAT TALK!

212 x 215	At Veedersburg, Ind., April 18, made by C. A. Young winning	High Average
513 x 545	At the Texas State Shoot, Mexia, Tex., April 24-26, by L. I. Wade, winning.	High Average
48 x 50	At the Texas State Shoot, Mexia, Tex., 4-26, by Mr. Carter, winning.	Chronicle Trophy
50 x 50	In the Individual Championship event he Texas State Shoot, April 24-26, by L. I. Wade, being the	Only Straight Score
362 x 380	At Chanute, Kan., April 19-20 made by Ed. O'Brien, winning	High Average
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All of the above scores were made with THE PERFECT AMMUNITION

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The Best on the Market today.

They Run Smoothly, Wear Well and Seldom Need Sharpening.

QUALITY is the one essential in a saw and that WE GIVE YOU.

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All Jobbers carry STEVENS RIFLES, PISTOLS and SHOTGUNS in stock. Ask YOUR Jobber for them.

Illustrated catalog embodying entire line, New Models, Accessories, etc., mailed FREE on request.

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CHICOPEE FALLS, MASS., U. S. A.

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size, and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

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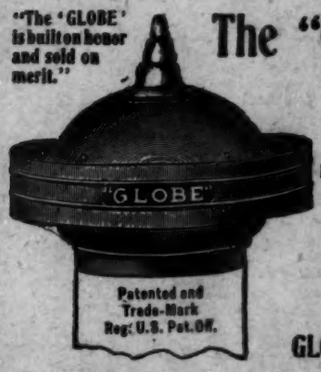
ROCKFORD, ILL.

Manufacturers of Sheet Metal Specialties

"The 'GLOBE' is built on honor and sold on merit."



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in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes

Absolutely Storm Proof

For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character

SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"

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GLOBE VENTILATOR CO., Troy, N.Y.

STAY-IN Flue Stoppers

are **guaranteed** to be absolutely soot proof. Cannot be jarred or blown from flue hole.

Finished In Brass and Nicely Decorated

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"We are using your bright charcoal tinplate in a difficult drawing operation for which, we had been informed only sheet brass could be used."

This is a sample of the testimonials we are receiving.

For DURABILITY, SUPERIOR FINISH and EXTRAORDINARY STAMPING QUALITY

Try our

BANFIELD BEST BRIGHT GILBERT

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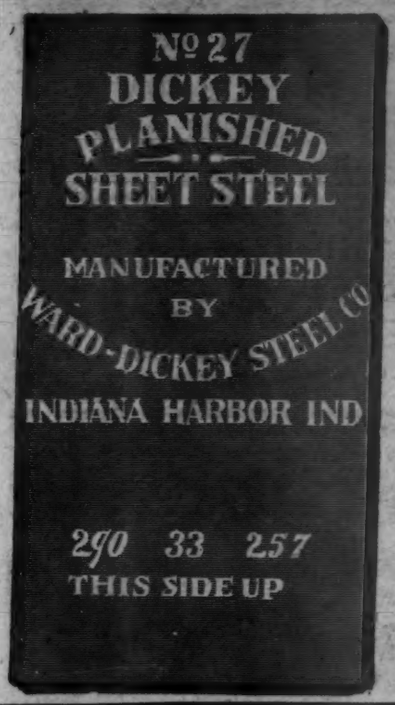
ROSEDALE

Made of

HAMMERED OPEN HEARTH

FOLLANSBEE BROS. CO., Pittsburgh

Specialists in tinplate manufacture.



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Have to anticipate wants
Don't get left
Rush is on

Technologist

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Designs and builds new plants. Improves quality and reduces cost in those already established.

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They make chimneys draw, give tinners employment making stocks and give the dealers profit.

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The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut-off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

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